

UNITED STATES DISTRICT COURT  
SOUTHERN DISTRICT OF NEW YORK

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IN RE SEPTEMBER 11 PROPERTY DAMAGE	:	This document also relates to:
AND BUSINESS LOSS LITIGATION	:	
	:	08 CIV 3719
	:	08 CIV 3722
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**DECLARATION OF KERRY D. VANDELL  
IN OPPOSITION TO THE AVIATION DEFENDANTS'  
MOTION FOR SUMMARY JUDGMENT BASED ON CPLR 4545(c)**

KERRY D. VANDELL, pursuant to 28 U.S.C. §1746, declares under the penalties of perjury that the following is true and correct:

**I. QUALIFICATIONS**

1. I am the Director of the Center for Real Estate and a Professor of Finance at the Paul Merage School of Business, University of California - Irvine. Prior to joining the faculty at UC Irvine, I was most recently the Tiefenthaler Chaired Professor of Real Estate and Urban Land Economics at the University of Wisconsin-Madison and the Director of the Center for Urban Land Economics Research. I also served as the Chairman of the University of Wisconsin-Madison's Department of Real Estate and Urban Land Economics and as the Director of the Bolz Center for Arts Administration. I received my B.A. and Masters in Mechanical Engineering degrees from Rice University, my Masters in City and Regional Planning from Harvard University, and my Ph.D. in Urban Studies and Planning from M.I.T. While at M.I.T., I was the Charles Abrams Fellow at the Joint Center for Urban Studies. I have also taught at Harvard University, the University of California-Berkeley, and Southern Methodist University in Dallas and served as a visiting scholar at the University of Southern California and Hong Kong University.

2. In addition to my teaching responsibilities, I have been active in other academic activities related to real estate markets and finance for the past 32 years. Examples of these activities include serving as President of the American Real Estate and Urban Economics Association, co-editing the Association's Journal, *Real Estate Economics*, serving as an Academic Fellow of the Urban Land Institute, serving as a member of the Faculty and Board of the Homer Hoyt Advanced Studies Institute, and serving as a member of the Federal National Mortgage Association's Housing Policy Advisory Board. I have also served as a member of several journal editorial boards, including the *Journal of Real Estate Finance and Economics*, the *Journal of Real Estate Research*, the *International Real Estate Review*, *Land Economics*, the *Journal of Housing Research*, and *Housing Policy Debate*.
3. At UC Irvine, my primary teaching responsibilities are currently a graduate survey course in real estate analysis and a graduate course in mortgage-backed securities and structured debt. Over the years, I have taught virtually every course in the real estate curriculum at both the undergraduate and graduate levels. These include courses in real estate valuation, real estate finance, urban development and planning, urban economics, real estate investments, and housing economics and public policy, as well as serving as the academic coordinator in charge of the nation's first graduate level academic program specializing in applied real estate securities analysis. My research and consulting activities have been in the areas of real estate investment; urban, real estate, and environmental economics; valuation theory and practice; housing economics and policy; and mortgage finance.
4. A partial list of recent consulting clients includes (but is not exclusive to) the Ford Foundation, the U.S. Department of Housing and Urban Development, the U.S. Department of Justice, the General Accounting Office, the State of Wisconsin Investment Board (which manages the investment portfolio of the State of Wisconsin's retirement system), the National Association of Realtors, the Federal Home Loan Bank Board, the

Real Estate Research Institute, the Credit Union National Association, Trout Unlimited, the Mortgage Bankers Association of America, the Urban Land Institute, the Land Court of Queensland Australia, the Redevelopment Authority of the City of Milwaukee, Fannie Mae, the Travelers Realty Investment Company, the National Multi Housing Council, Salomon Brothers, Inc., Ameritech Michigan, the International Council of Shopping Centers, the National Association of Counties, the U.S. Conference of Mayors, the City of Madison Department of Economic Development, Downtown Madison Inc., and Future Madison, Inc. Until I recently relocated to Orange County, CA, I also sat on the boards of ChrisKen Realty Trust (a private multifamily REIT based in Chicago), the Park Bank, Hilldale, Inc. (a regional mall), and the Board of Trustees of Funds and Endowments of the Episcopal Diocese of Milwaukee.

5. A copy of my curriculum vitae, which includes a list of my publications during the last ten years and expert testimony at trial and/or deposition during the past four years, is attached as Exhibit 29 to this declaration.

## **II. PURPOSE OF DECLARATION**

6. I have been requested to provide a preliminary opinion on the proper methodology for calculating the economic damages suffered by the plaintiffs World Trade Center Properties ("WTCP"). I have not been asked and I do not provide empirical quantifications of such damages since that is not called for yet and this is not an expert report. This declaration is not intended to serve in lieu of an Expert Report prepared pursuant to Fed R. Civ. P. 26. A formal Rule 26 report may be provided at an appropriate time in this litigation. I have reviewed the Aviation Defendants' Motion for Summary Judgment, their supporting documents, pleadings in this action, the other declarations submitted in opposition to the Aviation Defendants' motion, media reports and press releases regarding the lease of space within World Trade Center buildings 1, 2, 4 and 5 by the Port Authority to WTCP

and relevant research literature. All of the materials I rely upon in support of this declaration are of a type reasonably relied upon by experts in the field.

7. I will proceed in section III to provide background information on the transaction that led to WTCP's leases of space within the World Trade Center complex within buildings 1, 2, 4 and 5 and to identify the specific property interest held by WTCP. In section IV, I describe the damages calculation methodology and considerations that must be taken into account in calculating damages to WTCP. Section V focuses on certain unique circumstances of the World Trade Center complex that contribute to its economic value in the market as distinct from a "typical" income-producing property and ownership structure. In section VI, I discuss WTCP's obligation to replace the World Trade Center buildings, and finally, in section VII, I provide a summary of my conclusions.

### **III. BACKGROUND**

#### **A. Construction of the World Trade Center Complex and Entry into WTCP's Net Leases**

8. Construction of the World Trade Center complex commenced in 1965; the total cost in nominal dollars was approximately \$1 billion.<sup>1</sup> Given inflation in construction costs, this represents approximately \$10 billion in today's dollars.<sup>2</sup>
9. The Aviation Defendants claim that certain rental payments under the Net Leases were "valued" by the Port Authority at approximately \$2.8 billion. However, as discussed below, this amount does not represent the value of the leasehold to WTCP or the value of the buildings themselves within the

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<sup>1</sup> See Exhibit 30.

<sup>2</sup> See Exhibit 30.

World Trade Center complex. It does not even represent the value of the Net Leases to the Port Authority. While it purports to reflect the present value of certain rental payments under the Net Leases from WTCP to the Port Authority, it does not take into consideration other expenses and additional obligations that are borne by WTCP that benefited the Port Authority.

10. Moreover, even if the \$2.8 billion could be considered the “value” of the transaction, it certainly cannot be considered “market value” as that term is generally understood. That is because, for a transaction price to be considered a “market value,” the transaction must meet certain criteria not present in the World Trade Center leasehold transaction.
11. While there are several definitions of “market value,” it is generally understood to mean the amount for which a property should be exchanged between typically motivated willing buyers and sellers in an arm’s-length transaction where neither party is under undue duress.<sup>3</sup> The Port Authority was not a profit-maximizing lessor,<sup>4</sup> and was under some political pressure to lease certain portions of the World Trade Center operations.<sup>5</sup> Even if one were to accept that the value to the Port Authority of the lease transaction between WTCP and the Port Authority was only \$2.8 billion and even if one were to accept as facts only the documents contained in the Aviation Defendants’ summary judgment motion, there are a number of reasons why the transaction would not qualify as a “market value” transaction as that term is generally understood. Most importantly, the Port Authority had, and has, broader goals than maximizing its income, including promoting the public interest in the World Trade Center complex “to the Port Authority

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<sup>3</sup> See, for example, Appraisal Institute, *The Appraisal of Real Estate*, 13<sup>th</sup> edition, pp. 22-25, 305.

<sup>4</sup> Declaration of Alexander Garvin in Opposition to the Aviation Defendants’ Motion for Summary Judgment Based on CPLR 4545(c) dated August 14, 2008 (“Garvin Declaration”), ¶16.

<sup>5</sup> Garvin Declaration, ¶¶47-48.

and to the people of the region.”<sup>6</sup> Thus, the lessor was not “typically motivated” and the price of the lease transaction would not constitute “market value.”

## **B. Elements of the Net Leases**

12. WTCP holds 99-year leasehold interests in space within World Trade Center Buildings 1, 2, 3 (formerly known as 5), and 4 of the World Trade Center complex. The Aviation Defendants allege that the present value of these buildings is \$2.8 billion, consisting of the following elements:<sup>7</sup>

- a. An upfront payment to the Port Authority of \$616 million payable upon closing, which included a \$491 million payment by WTCP for the Net Leases of space within World Trade Center 1, 2, 4, and 5 (and the subgrade space) and a \$125 million payment by Westfield LLC for the retail mall.<sup>8</sup>
- b. A stream of fixed base rental payments that the Aviation Defendants claim has a present value of \$2.53 billion. The present value of these cash flows (Tranche A in years 1-99 and Tranche B in years 1-30) to the Port Authority was based on discount rates of 8 percent and 12 percent, respectively.
- c. A 99-year stream of participating rental payments that the Aviation Defendants claim has a present value of approximately \$65 million, discounted at a rate of 10 percent.
- d. When the Aviation Defendants’ estimated present value of Westfield’s portion of the lease payment obligations of \$395 million is netted out,<sup>9</sup> the total present value to the Port Authority of the payments from WTCP was estimated by the Aviation Defendants to be approximately \$2.8 billion based on the various discount rates selected as of April 2001.

13. In addition to the contracted lease payments (which WTCP was obligated to pay regardless of the productivity of the property and even if it were

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<sup>6</sup> Declaration of Desmond T. Barry dated April 26, 2001, (“Barry Declaration”), Exhibit A, p. 161.

<sup>7</sup> Barry Declaration, Exhibit B and Q, p. 92.

<sup>8</sup> Barry Declaration, Exhibit W, p.8.

<sup>9</sup> Barry Declaration, Exhibit P.

destroyed<sup>10</sup>), there were a number of additional obligations that would affect the value of the Net Leases to the Port Authority and the cost of the Net Leases to WTCP. These include the following:

- a. The lessee was obligated to maintain the property in an optimally productive manner at all times.<sup>11</sup>
- b. The lessee was responsible for all taxes, operating and maintenance costs, capital improvements, leasing, and property and asset management.<sup>12</sup>
- c. The lessee was obligated to return the property to the Port Authority at the end of the 99-year lease term in an acceptable operating order, appearance, and condition.<sup>13</sup>
- d. In the event of the destruction of the premises, the lessee was obligated to “rebuild, restore, repair and replace the Premises ... to the extent feasible, prudent and commercially reasonable, with the plans and specifications for the same as they existed prior to such damage or destruction or with the consent in writing of the Port Authority . . . make such other repairs, replacements, changes or alterations as is mutually agreed to by the Port Authority and the Lessee.”<sup>14</sup> In other words, WTCP could not simply pay the base rent without replacing the property in a timely fashion.<sup>15</sup>

14. As I discuss below, the \$2.8 billion amount advocated by the Aviation Defendants is not the economic value of the World Trade Center buildings. It is also incorrect as a measure of damages to the plaintiffs.<sup>16</sup> The \$2.8 billion fails to take into account damages to WTCP’s leasehold interest and

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<sup>10</sup> Barry Declaration, Exhibits L § 15.1.4, M § 15.1.4, N § 15.1.4, and O § 15.1.4.

<sup>11</sup> Barry Declaration, Exhibits L § 13, M § 13, N § 13, and O § 13.

<sup>12</sup> Barry Declaration, Exhibits L §§ 6.4, 6.7-6.11, 13.1, M §§ 6.4, 6.7-6.11, 13.1, N §§ 6.4, 6.7-6.11, 13.1, and O §§ 6.4, 6.7-6.11, 13.1.

<sup>13</sup> Barry Declaration, Exhibits L §§ 3, 30, M §§ 3, 30, N §§ 3, 30, and O §§ 3, 30.

<sup>14</sup> See, for example, Barry Declaration, Exhibit L § 15.1.

<sup>15</sup> See, for example, Barry Declaration, Exhibit L §§ 15.1, 15.1.4. The Aviation Defendants have argued that WTCP did not actually have the obligation to replace the property and could simply walk away, because it would be uneconomical to replace the property (*i.e.*, the replacement cost would exceed the market value of the replacement). I address the fallacy of this claim, from an economic perspective, below.

<sup>16</sup> The \$2.8 billion was as of April 26, 2001 (*See* Barry Declaration, Exhibit B). The date of the destruction of the buildings was September 11, 2001. To the extent that risk and the market environment may have changed between April 26 and September 11, 2001 warranting a different discount rate, the present value would change.

damages to the Port Authority's residual claim on the World Trade Center property through its reversionary interest. Furthermore, as discussed above, and contrary to the claims of the Aviation Defendants,<sup>17</sup> the \$2.8 billion is not even the value to the Port Authority of the Net Leases for space within the World Trade Center buildings. This is because this amount fails to take into account WTCP's obligations over and above the lease payments under the Net Leases as explained above with some examples of obligations not taken into account.

15. The relevant measure of one aspect of the damages to WTCP itself (exclusive of replacement costs incurred and to be incurred) is the value of the leasehold interest to WTCP and not the value to the Port Authority of the Net Leases, which is an expense to WTCP. If \$2.8 billion were the entire value of the Net Leases both to the Port Authority and to WTCP, the transaction would have made no sense. WTCP had the expectation of making a profit on the leases over and above the payments and other obligations WTCP agreed to pay and undertake, respectively.
16. The Net Leases' terms, which had built into them some profit opportunity to WTCP in order to make the Net Leases attractive to WTCP, also permitted WTCP some discretion as to managing, improving, and leasing the property that created significant additional opportunity for WTCP to realize previously unrealized value that would not exist under full management by the Port Authority. This would increase the investment value of the leasehold interest to WTCP (and, in fact, to any experienced and efficient private operator). Thus, anticipated market rents and net operating income levels significantly above historic trends under the Port Authority could rationally be expected.

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<sup>17</sup> Aviation Defendants' Memorandum of Law in Support of Their Motion for Summary Judgment Dismissing All Claims by World Trade Center Properties for the Destruction of WTC 1, 2, 4, and 5, p. 28.



**IV. THE PROPER METHODOLOGY FOR CALCULATING DAMAGES AND ELEMENTS OF THE DAMAGES CALCULATION**

17. The proper methodology for calculating the economic damages suffered by WTCP to its leasehold interests is to calculate the difference between WTCP's cash flows expected but for and as a result of the attacks of 9/11/01, expressed in present value terms discounted at risk adjusted rates as of that date.
18. The first step is to calculate the present value of WTCP's cash flows as if the attacks had not occurred. This should be represented as a schedule of expected revenues and costs (*i.e.*, the net operating income or before-tax cash flow on an after-financing basis) over the 99 years of the leases, as if September 11 had not occurred, discounted to 9/11/01 at the appropriate discount rate or rates.
19. This is then followed by a second schedule of actual and expected revenues and costs, taking into account the events of 9/11, including the costs to rebuild the properties and the absence of revenues for a substantial period of over ten years. These revenues and costs would be discounted back to 9/11/01 at the appropriate discount rate or rates.
20. In both calculations, the discount rate would incorporate both the time value of money and the risks associated with the cash flows as well as the effects of liquidity and market conditions. The discount rates used to calculate cash flows but for the events of 9/11 and considering the events of 9/11 may be different. The discount rates would have a significant impact on the present value calculation.
21. The difference between the projected present values would be the economic damages incurred by WTCP, because it would put WTCP in the same financial position as it would have been in, but for the events of 9/11.

22. The methodology for calculating cash flows expected, considering the events of 9/11, must take into consideration any and all changes in the expected net cash flows (some of which might be positive and some negative) associated with the replacement buildings relative to the expected net cash flows from the original World Trade Center buildings. This approach would avoid any unintended windfall to WTCP from the construction of new buildings, which might result in higher revenues as a result of any potential over-improvement.
23. A careful, unbiased discounted cash flow analysis reflecting the but-for cash flows and the cash flows calculated considering the events of 9/11 as described above, would yield a quantification of economic damages suffered by WTCP, including replacement costs and lost profits.
24. The Aviation Defendants claim that damages to WTCP are capped at \$2.8 billion, which, as I have demonstrated above, may be a measure of part of the value of the Net Leases to the Port Authority and a cost to WTCP, but does not represent the damages to WTCP at all. In fact, \$2.8 billion represents neither damages to WTCP nor the economic value of the World Trade Center buildings themselves. In considering damages and the lost productivity of the structures themselves, one must consider that the economic value of the World Trade Center buildings also includes value related to the broader “public purpose” objectives of the public governmental owner, the Port Authority. The World Trade Center complex had a significant economic development impact on Lower Manhattan and the New York region, which provided substantial additional economic value.

**V. GIVEN THE ECONOMIC VALUE OF THE WORLD TRADE CENTER COMPLEX RELATIVE TO THE RECONSTRUCTION COSTS, REBUILDING WOULD NOT BE UNECONOMICAL**

25. The World Trade Center complex and WTCP's interest in it are fundamentally different from a traditional office building development and leasehold investment. One cannot speak of "market value" concepts associated with the World Trade Center complex in the traditional textbook appraisal context, since the project was developed – and has always existed – as an asset with significant "public purpose" value that extends beyond its private economic value in the marketplace.
26. The idea behind the World Trade Center complex began with the Downtown Lower Manhattan Association, and, starting in 1961, was adopted and developed by the Port Authority.<sup>18</sup> It was much larger in scale than the private market could support during the period it was developed. The serious decline in the real estate market in Lower Manhattan relative to Midtown in the 1950s was among the factors that provided the impetus for the development of the World Trade Center complex, as private development efforts such as the Chase Manhattan Bank Building in 1960 had done little to revive Lower Manhattan.<sup>19</sup> Thus, the World Trade Center complex was intended to serve, and did serve, as an economic engine for Lower Manhattan.
27. Even today, given the improvement in the economic fortunes of New York City since the 1970s, a project of the scale of the World Trade Center complex would be infeasible from a purely private-sector economic perspective.
28. This implies that the replacement cost of the World Trade Center complex then, as now, would be expected to be greater than the private value created

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<sup>18</sup> Garvin Declaration, ¶¶ 27, 30-33.

<sup>19</sup> Garvin Declaration, ¶¶ 23, 25-26.

by way of capitalization or discounting of the economic net rents able to be achieved.

29. Why then was the World Trade Center complex built? The primary purpose of the Port Authority in undertaking the project was to create a structural presence that could serve as a catalyst and incubator for economic development in Lower Manhattan, and New York City and the Port of New York and New Jersey as a whole.<sup>20</sup> The World Trade Center complex was expected to provide an “anchor” for activity in the area. As noted above, World Trade Center 1 and 2 (the “Twin Towers”) were the tallest buildings in the world at the time, and altogether the project was the largest real estate development in the world in terms of square footage.
30. Can the magnitude of such economic development benefits be determined empirically? Theoretically, this can be done (and is, in fact, done) through economic impact studies using multiplier or input-output analysis. For example, a 2003 study commissioned by the Lower Manhattan Development Corporation projected that during construction, “the World Trade Center would generate \$14.02 to \$15.42 billion in total economic output in New York City, and an average of 7,760 to 8,530 full-time equivalent jobs each year for thirteen years” and once completed “the total impact on the City’s economy from operations at the World Trade Center site and off-site visitor spending will include a \$15.70 billion increase in *annual* economic output and approximately 77,000 full-time equivalent jobs.”<sup>21</sup> A second study, by the Office of the Comptroller of the City of New York, projected that the ongoing adverse economic impact on New York City revenues due to the absence of the World Trade Center complex

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<sup>20</sup> The Garvin Declaration provides a detailed historical accounting of the public purpose objectives of the development of the World Trade Center complex. Such an objective is not uncommon for governmental institutions.

<sup>21</sup> Appleseed, “Economic Impact of Redeveloping The World Trade Center Site,” October 30, 2003, pp. 4-5 (emphasis added).

in fiscal years 2002 and 2003 would be \$45 billion to 60 billion.<sup>22</sup>

Numerous additional studies also found substantial economic impact associated with the rebuilding of the World Trade Center complex.<sup>23</sup>

31. The above cited studies suggest, in the case of the World Trade Center complex, that the effect on subsequent development in Lower Manhattan was so strong, and the magnitude of the direct economic effects so large (even if allocated among a number of contributing sources), one could be confident that the dollar value of these effects would be significantly greater than the replacement cost of the structures, even ignoring the additional economic benefits for the City and Region beyond Lower Manhattan.
32. There is a direct economic impact parallel between the role the original World Trade Center complex played in Lower Manhattan and the role an anchor department store plays in enhancing the value of a regional shopping mall. It is well established in the shopping center industry that the anchor typically pays lower rents or gets its space free, or at reduced cost (if owning), in exchange for locating in the center. Its strong customer-generating power brings in enough additional shoppers to enhance the rents obtainable from the in-line non-anchor stores by an amount sufficient to more than make up for the subsidy. The anchor thus generates a positive externality, or spillover. If one were simply asked to value the anchor alone to the landlord by capitalizing the rent the anchor pays, the result would be a figure below its true value to the landlord/mall because of the positive externality/spillover (*e.g.*, incremental rents generated from other tenants are

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<sup>22</sup> City of New York, Office of the Comptroller, "The Impact of the September 11 WTC Attack on NYC's Economy and City Revenues," October 4, 2001, p. 8.

<sup>23</sup> See, for example, Reis, "Evaluating the Impact of the World Trade Center Disaster on the New York Office Leasing Market," October 2001; McKinsey & Co., "Economic Impact of the Attack on the Real Estate Sector;" Zandi, Mark, "Attack on America: Fallout on the U.S. Economy," Economy.com, September 17, 2001; Deutsche Bank Alex Brown, "Metro Impact of September 11<sup>th</sup> Attacks," September 25, 2001; Grubb and Ellis Research, "NYC's Office Market – A Post 9-11 Update," December 2001; and, ATKearney, "Rebuilding the WTC: Economic Impact Analysis, January 21, 2002.

external benefits of the anchor to the landlord).<sup>24</sup> Further, the replacement cost of the anchor improvements, including the cost of the space, would be greater than this market value calculation. To properly value the economic contribution of the anchor would require recognition of the incremental rents it is responsible for generating among the in-line tenants.<sup>25</sup>

33. When applied to the World Trade Center case, the concepts discussed above would consider the entire Lower Manhattan real estate market to be the equivalent of the “mall” and the World Trade Center development to be the anchor. Although rents for the World Trade Center alone might result in a traditional market value calculation insufficient to justify development, the impact of the project on future demand, hence rents and values and additional taxes, in the broader market would create enough economic value to more than make up for any rent deficiency of the project.
34. The conclusions from this analysis include the following: (1) an inapplicable narrow, private-market based calculation of the “market value” of the World Trade Center involving the discounting of expected net rents would be expected to be lower than the replacement cost of the improvements; and (2) the correct total economic value of the World Trade Center buildings leased by WTCP is significantly greater than the replacement cost, owing to the substantial economic development benefits

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<sup>24</sup> See, for example, B.P. Pashigian and E. D. Gould, “Internalizing Externalities: The Pricing of Space in Shopping Malls,” *Journal of Law and Economics*, April 1998, pp. 115-142.

<sup>25</sup> Additional examples abound of such spillover effects in the real estate market resulting in cross-subsidization of rents and having an influence on aggregate market value. Consider a golf course acting as the centerpiece of a new residential development, around which homes would be built. Alone, the revenues from golf memberships and green fees would be insufficient to justify its development. However, the spillover effects generated by the presence of the course upon increased prices for lots abutting the course or enjoying the presence of the nearby amenity more than offset its cost. Similarly, tenant-serving retail operations within a large office building frequently do not pay their way in terms of rent levels based upon their level of sales. However, the fact that tenants value their presence makes them more willing to pay higher rents for their presence at the margin and means retail operations contribute indirectly their full economic value to the office development.

35. Given the greater public purpose value of the World Trade Center, the decision (and obligation) of WTCP to rebuild does not represent an uneconomical effort.

## **VI. WTCP'S OBLIGATION TO REPLACE THE BUILDINGS**

36. It is argued by the Aviation Defendants that WTCP is not obligated by the terms of the Net Leases to replace the properties.<sup>26</sup> The Aviation Defendants seem to be arguing that WTCP would never realize a competitive return on its investment if it were to incur the cost of replacement of the structures and then lease them at market rates. This argument fails to consider the value that accrues to the residual owner of the World Trade Center, the Port Authority. By the Aviation Defendants' reasoning, the World Trade Center would never have been built in the first place.
37. The argument also overlooks a number of other issues. For example, whether a default on its replacement obligation would be the best choice economically for WTCP (even at this point ignoring the existence of value from broader economic development benefits). If WTCP were to default on its obligation to replace the structures, it would be declared in default, which would result in: (a) the forfeiture of the over one-half billion dollars in rental payments already made by WTCP prior to September 11, 2001; (b) the forfeiture of all monies collected from WTCP's insurers; and (c) the loss of the limitations on its liability and the liability of its affiliated entities and

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<sup>26</sup> Aviation Defendants' Memorandum of Law in Support of Their Motion for Summary Judgment, p. 19.

individuals under ATSSSA as a result of willfully failing to rebuild.<sup>27</sup>

Moreover, WTCP would still be obligated by the terms of its lease to pay base rent for the full term of the leases.

38. WTCP is, in fact, obliged under the terms of the lease to replace the buildings “promptly” and to replace the buildings “substantially in accordance, to the extent feasible, prudent and commercially reasonable, with the plans and specifications for the same as they existed prior to such damage or destruction or with the consent in writing of the Port Authority . . . make such other repairs, replacements, changes or alterations as is mutually agreed to by the Port Authority and the Lessee.”<sup>28</sup> It is in the economic interest of WTCP to replace the buildings as soon as possible to generate rental income to offset the lease payments it is obliged to pay to the Port Authority.
39. A decision by WTCP to default on its leasehold obligations would create additional costs beyond those discussed above, including negative reputational effects for WTCP. Indeed, the only party that would immediately benefit from a default by WTCP would be the Aviation Defendants, and the Port Authority would then prosecute its claim for replacement costs.
40. Regardless of whether WTCP replaces the structures or the Port Authority does it, the damages exist, and it is economically rational that the buildings be replaced.

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<sup>27</sup> Air Transportation Safety and System Stabilization Act of 2001, Pub. L. No. 107-42, 115 Stat. 230 (2001) (codified as amended at 49 U.S.C. § 40101 note) (West Supp. 2008) (“ATSSSA”) at § 408(a)(2).

<sup>28</sup> Barry Declaration, Exhibits L § 15.1, M § 15.1, N § 15.1, and O § 15.1.



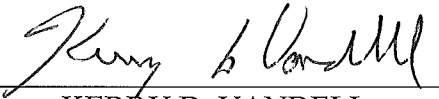
## VII. SUMMARY OF CONCLUSIONS

41. A number of issues have been raised by the Aviation Defendants in this case concerning the appropriate methodology to calculate compensable damages and the extent to which WTCP is obligated to replace the World Trade Center structures. My analysis has certain implications for several of these issues. Specifically:

- The proper interest held by WTCP is the leasehold interest specified in the Net Leases entered into with the Port Authority as of July 16, 2001. The \$2.8 billion is not the value to WTCP of its leasehold interests. It is also not the value to the Port Authority of its leased fee interest as the owner of the destroyed buildings or the value to the Port Authority as the owner of the reversionary interest.
- The damages suffered by WTCP are properly calculated by projections of the anticipated revenues and costs associated with WTCP's leasehold interest just prior to the events of 9/11 and the revised anticipated revenues and costs (including the costs to rebuild the properties) just after the events of 9/11, discounted back to the time of the event at appropriate discount rates.
- Because of the special "public" role intended for the World Trade Center complex as a catalyst for future economic development in Lower Manhattan, there must be special considerations given when estimating its economic value.
  - These considerations are comparable to those accorded any complex property interests which involve a spillover of benefits to other property interests beyond the subject property itself. Such spillover benefits must properly be included in considering total economic value of the subject property.
  - In light of the public purpose of the World Trade Center, the project was appropriately developed at a time and at a higher density than would have been appropriate if only private-market considerations were relevant. This means the replacement cost of the buildings, including at the specific site, is greater than the private-market value of the project as determined by discounting or capitalizing its net rental stream. It also means that the full economic value of the project is in excess of its replacement cost.
  - Thus, even if the Court were to apply the test the Aviation Defendants advocate (and I am not opining on the correct approach

to allowing WTCP to recover its damages under the law of New York), the cost of replacement of the World Trade Center buildings with properties of comparable utility and functionality would represent the “lower of two” values: replacement cost vs. diminished market value, where “market value” is the full and proper economic value contributed by the buildings as part of the World Trade Center complex.

Dated: August 15, 2008  
Irvine, California

  
KERRY D. VANDELL

**Exhibit 29**

**Kerry Dean Vandell**

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Two children - Colin Buckner born October 4, 1979, Ashley Elizabeth born March 9, 1985

**Education**

Ph.D. Massachusetts Institute of Technology, 1977  
(Urban Studies and Planning)  
Dissertation: Alternative Mortgage Instruments: Their Distributional Effects on Homeownership, Housing Consumption, and the Use of Mortgage Credit  
Chairman: Arthur P. Solomon

M.C.P. Harvard University, 1973 (City and Regional Planning)

B.A./M.M.E. Rice University, 1970 (Mechanical Engineering)

**Honors and Awards**

- 2007 American Real Estate Society, *Journal of Real Estate Research* Legacy Award for Best Paper (Voted by the Board of the *JRER*, for Ruslan Koesman, James D. Shilling, and Kerry D. Vandell, "How Tax Credits have Affected the Rehabilitation of the Boston Office Market," *Journal of Real Estate Research*, Volume 28, Number 4, 2006.)
- 2005 Second Place, American Real Estate Society Competitive Paper Award for Best Paper published in the *Journal of Real Estate Research* (Voted by the membership of ARES, for Charles Carter and Kerry D. Vandell, "*Bid Rent vs. Agglomeration Economies as Alternative Theories of Store Location within Shopping Centers.*")

- 2004 Outstanding Paper Award, Appraisal Institute, (for Tsong-Yue Lai, Kerry D. Vandell, and Ko Wang, "Estimating Property Value by Replicating One")
- 2004- Member Manufactured Housing Council, Urban Land Institute, Washington D.C. (invited)
- 2003 George Bloom Award, presented by the Officers and Directors of the American Real Estate and Urban Economics Association "for outstanding contributions to the field of real estate."
- 2002- Board of Directors, Asian Real Estate Society (elected)
- 2002-06 Co-Editor, *Real Estate Issues* (invited, official journal of the Counselors of Real Estate)
- 2000 First Place, Financial Management Association Competitive Paper Award for Fixed Income Research, sponsored by the Fixed Income Analysts Society (for Qiang Fu, Michael Lacour-Little, Kerry D. Vandell, "Commercial Mortgage Prepayments under Heterogeneous Prepayment Penalty Structures")
- 2000- Counselors of Real Estate (CRE) (invited)
- 2000-04 Research Advisory Task Force, International Council of Shopping Centers (invited)
- 2000-04 Director, the Center for Real Estate Enterprise Development (Centerprise) (invited)
- 1999 Recognized in *Business Week Guide to the Best Business Schools*, Sixth Edition, as one of ten outstanding faculty at the U.W.-Madison School of Business
- 1999- Research Committee of the National Realty Committee (now the Real Estate Roundtable) (invited)
- 1999- Editorial Board, *Journal of Real Estate Research* (appointed)
- 1998-2003 Fellow, Member Retail Development Council, Urban Land Institute, Washington, D.C. (invited)
- 1999 Editorial Board, *International Real Estate Review*
- 1998-03 Member, Commercial/Retail Development Council, Urban Land Institute, Washington, D.C. (invited)
- 1996-06 Named to Lorin and Marjorie Tiefenthaler Chair in Real Estate and Urban Land Economics (vacated when joined faculty at University of California – Irvine)
- 1994 Robert A. Jerred Award for Distinguished Service to the School of Business, University of Wisconsin - Madison
- 1994-96 Research Committee, Urban Land Institute, Washington, D.C. (invited)
- 1993-06 Board of Directors and Associate Dean, Homer Hoyt Institute of Advanced Studies in Real Estate and Urban Land Economics (elected)
- 1992-98 Fellow, Member Urban Development/Mixed-Use Council, Urban Land Institute, Washington, D.C. (invited)
- 1992-2003
- 2006- Board of Editors, *Journal of Housing Research*
- 1992- Office of Housing Research Advisory Board, Federal National Mortgage Association
- 1991-97 Co-Editor, *Journal of the American Real Estate and Urban Economics Association* (now *Real Estate Economics*)(elected)
- 1991- Who's Who in America
- 1991 President, American Real Estate and Urban Economics Association (elected)
- 1990 First Vice President, American Real Estate and Urban Economics Association
- 1989 Who's Who in Finance and Industry
- 1989- Member of the Faculty, Homer Hoyt Advanced Studies Institute (invited)
- 1989 Second Vice-President and Program Chairman, American Real Estate and Urban Economics Association (invited)
- 1988- Fellow, School of Advanced Studies in Real Estate and Land Economics of the Homer Hoyt Advanced Studies Institute (invited)
- 1988 Real Estate Consultants Advisory Committee, Salomon Brothers, Inc., New York City (invited)
- 1985 Faculty Research Excellence Award, Edwin L. Cox School of Business, SMU

1983-97 Board of Directors, American Real Estate and Urban Economics Association, re-elected 1986 for three-year term. Continued ex-officio as President, Ex-President, and Co-Editor of Journal

1982 Awarded Tenure, Edwin L. Cox School of Business, SMU

1980- Editorial Board, *Journal of the American Real Estate and Urban Economics Association*

1979 Faculty Research Excellence Award, Edwin L. Cox School of Business, SMU

1979 Regional Finalist, White House Fellows Program

1979-80 Young Associates Council, Society of Real Estate Appraisers

1978 Finalist, Faculty Research Excellence Award, Edwin L. Cox School of Business, SMU

1975-76 Charles Abrams Fellow, Joint Center for Urban Studies of M.I.T. and Harvard

1971-74 National Science Foundation Fellow

1970 B.A. Cum Laude

1970 Outstanding Senior Engineering Student

1970 Hugh Scott Cameron Award

1970 Who's Who in American Colleges and Universities

1969-70 Brown Engineering Award

1969-70 Engineering Alumni Scholarship

1968 Tau Beta Pi National Engineering Honorary Society

1968 Sigma Tau National Mechanical Engineering Honor Society

1967-69 John B. Warren, Jr., Scholar

1965-67 William Marsh Rice Scholar

1965-66 National Honor Society Scholar

1965-66 Degree of Honor Scholar

### **Professional Experience**

2006- Professor of Finance and Director of the Center for Real Estate, the Paul Merage School of Business, University of California, Irvine

2004-05 Visiting Scholar, Lusk Center for Real Estate, University of Southern California

2000-05 Executive Director, Bolz Center for Arts Administration, University of Wisconsin-Madison

1997 Visiting Professor, Hong Kong University Department of Real Estate and Construction

1997-06 Affiliated Faculty, Institute for Environmental Studies, University of Wisconsin-Madison

1996-06 Lorin and Marjorie Tiefenthaler Professor of Real Estate and Urban Land Economics, University of Wisconsin-Madison (endowed Chair)

1990-2004 Director, Center for Urban Land Economics Research, University of Wisconsin-Madison

1989-93 Professor and Chairman - Department of Real Estate and Urban Land Economics, University of Wisconsin-Madison

1988-89 Visiting Professor - University of California, Berkeley (Real Estate and Urban Economics)

1986-89 Professor and Chairman - Department of Real Estate and Urban Land Economics, Southern Methodist University

1985-86 Visiting Associate Professor - Harvard University (Urban Design)

1980-86 Associate Professor - Southern Methodist University

1976-80 Assistant Professor - Southern Methodist University

1970-71 Associate Petroleum Engineer - Exxon Co. USA, Houston, Texas

### **Professional Affiliations**

American Real Estate and Urban Economics Association  
American Real Estate Society

Asian Real Estate Society  
 American Economics Association  
 American Finance Association  
 Urban Land Institute  
 Homer Hoyt Institute for Advanced Studies in Real Estate and Urban Land Economics  
 Mortgage Bankers Association of America  
 International Council of Shopping Centers  
 Counselors of Real Estate  
 Real Estate Roundtable  
 Lambda Alpha

### **Fields of Interest**

Mortgage finance, especially mortgage-backed securitization, structured finance, and the pricing of default and prepayment risk  
 Valuation of complex real property interests  
 Real estate liquidity and portfolio diversification  
 Real estate market dynamics  
 Tax policy, the capital markets, and homeownership  
 Market-based approaches to urban policy  
 Urban and environmental economics  
 Housing economics and policy  
 International real estate markets  
 The economics of architecture and urban design  
 Community economic development  
 The economics of arts and cultural policy

### **Publications** (\* indicates peer reviewed)

\*Major Coleman IV, Michael Lacour-Little, and Kerry D. Vandell, "Subprime Lending and the Housing Bubble: Tail Wags Dog?" revision completed, awaiting final acceptance, *Journal of Housing Economics*, 2008.

Zhenguo Lin, Yingchun Liu, and Kerry D. Vandell, "Marketing Period Risk in a Portfolio Context: Comment and Extension," *Journal of Real Estate Finance and Economics* (forthcoming). Available at SSRN: <http://ssrn.com/abstract=1134031>.

\* Zhenguo Lin and Kerry D. Vandell, "Illiquidity and Pricing Biases in the Real Estate Market," *Real Estate Economics*, Volume 35, Issue 3, 2007, pp. 291-330.

\* S. Bond, S. Hwang, Z. Lin, and K.D. Vandell, "Marketing Period Risk in a Portfolio Context: Theory and Empirical Estimates from the UK Commercial Real Estate Market," *Journal of Real Estate Finance and Economics*, Volume 34, Number 4, 2007, pp. 447-461.

Kerry D. Vandell, "Expanding the Academic Discipline of Real Estate Valuation: A Historical Perspective with Implications for the Future," *Journal of Property Investment and Finance*, Volume 25, Number 5, 2007, pp. 427-443(17). (Keynote address at Eleventh World Valuation Congress, Kuala Lumpur Malaysia, May 2006)

\* Ruslan Koesman, Zhenguo Lin, James D. Shilling, Kerry D. Vandell, "How Tax Credits have Affected

the Rehabilitation of the Boston Office Market,” *Journal of Real Estate Research*, Volume 28, Number 4, 2006. (ARES JRER LEGACY AWARD for Best Paper, 2007).

- \* Charles Carter and Kerry D. Vandell, “Store Location in Shopping Centers: Theory and Estimates,” *Journal of Real Estate Research*, Vol. 27, No. 3, 2005.

Kerry D. Vandell, “Commercial Mortgage Defaults: Their Causes and Cures,” Chapter 20 in *The Handbook of Real Estate Finance*, Revised Edition, Jess Lederman and G. Benjamin Swoyer, eds., Washington, DC: Real Estate Finance Press (forthcoming 2005).

Kerry D. Vandell, “Preparing the Next Generation,” *Real Estate Issues*, Fall 2003, pp. 26-33.

- \* Kerry D. Vandell, “Tax Structure and Natural Vacancy Rates in the Commercial Real Estate Market,” *Real Estate Economics*, Vol. 31, No. 2, 2003, pp. 245-267.

- \* Qiang Fu, Michael LaCour-Little and Kerry D. Vandell, “Commercial Mortgage Prepayments under Heterogeneous Prepayment Penalty Structures,” *Journal of Real Estate Research*, Volume 25, Number 3, 2003, pp. 245-276. (First Place, Competitive Paper Award for Fixed Income Research, sponsored by the Fixed Income Analysts Society, at the Annual Meetings of the Financial Management Association, Fall 2000).

- \* Steven Malpezzi and Kerry D. Vandell, “Does the Low-Income Housing Tax Credit Increase the Supply of Housing?” *Journal of Housing Economics*, Volume 11, Number 4, December 2002, pp. 360-380.

Kerry D. Vandell, “Business vs. Real Estate Value in Shopping Mall Valuation: A Critical Examination,” Chapter 24 in *A Business Enterprise Value Anthology*, David C. Lennhoff, Editor, Chicago: The Appraisal Institute 2001.

- \* Joseph A. Laronge, JD, and Kerry D. Vandell. "Solving the Functional Obsolescence Calculation Question: Part II," *Appraisal Journal*, Vol. LXIX, No. 2, April 2001, pp. 152-160.

- \* Kerry D. Vandell and Richard K. Green. “The Impact of Technology on Commercial Real Estate,” *Wharton Real Estate Review*, Vol. V, No. 2, Fall 2001, pp. 5-22.

- \* Kerry D. Vandell, “Multifamily Finance: A Pathway to Housing Goals, A Bridge to Commercial Mortgage Market Efficiency,” *Journal of Housing Research*, Vol. 11, No. 2, 2001, pp. 319-356

- \* Kerry D. Vandell, “Comment on Steven C. Bourassa and William Grigsby’s ‘Income Tax Concessions for Owner-Occupied Housing,’” *Housing Policy Debate*, Vol. 11, Issue 3, 2000, pp. 561-573.

- \* Charles Carter and Kerry D. Vandell, “Graaskamp’s Concept of Highest and Best Use,” in *Essays In Honor of James Graaskamp: Ten Years After*, American Real Estate Society, Research Issues in Real Estate, Vol. 6, James R. DeLisle and Elaine M. Worzala, eds., 2000.

Kerry D. Vandell and Stephen Malpezzi, “Analyzing the Gap Between Myth and Reality: A Closer Look at the Facts and Figures of Farming,” *Common Ground*, Vol. 2, No. 3, Fall 1999, pp. 10-14.

- \* Kerry D. Vandell, “The Mortgage REITS: Dynamos or Duds?” *Wharton Real Estate Review*, Vol. III, No. 2, Fall 1999, pp. 55-68.

- \* Richard K. Green and Kerry D. Vandell, "Giving Households Credit: How Changes in the Tax Code



Could Promote Home Ownership," *Regional Science and Urban Economics*, Vol. 29, No. 4, July 1999, pp. 419-444.

- \* Brian Ciochetti and Kerry D. Vandell, "The Performance of Commercial Mortgages," *Real Estate Economics*, Vol. 27, No. 1, Spring 1999, pp. 27-61..

- \* Mark Eppli, James D. Shilling, and Kerry D. Vandell, "What Moves Retail Property Returns at the Metropolitan Level?" *Journal of Real Estate Finance and Economics*, Vol. 16, No. 3, May 1998, pp. 317-342.

Kerry D. Vandell, *Strategic Management of the Apartment Business in a "Big REIT" World*, Research Report sponsored by the National Multi Housing Council and National Real Estate Investor, 1998.

- \* Kerry D. Vandell, "Improving Secondary Markets in Rural America," in Federal Reserve Bank of Kansas City, *Financing Rural America*, April 1997, pp. 85-120.

- \* Kerry D. Vandell, "FHA Restructuring Proposals: Alternatives and Implications," *Housing Policy Debate*, Vol. 6, No. 2, 1995, pp. 299-393.

Kerry D. Vandell, "Tribal Gaming Offers Niche Markets," *Urban Land*, Vol. 54, No. 12, December 1995, p. 40.

Kerry D. Vandell, "Saving Sommerset: One Community's Efforts to Stabilize a Neighborhood," *Commercial Investment Real Estate Journal*, Vol. 15, No. 3, May/June 1996, pp. 30-35.

- \* Kerry D. Vandell, "How Ruthless is Mortgage Default? A Review and Synthesis of the Evidence," *Journal of Housing Research*, Vol. 6, No. 2, 1995, pp. 245-264.

- \* Kerry D. Vandell, "Market Factors Affecting Spatial Heterogeneity among Urban Neighborhoods," *Housing Policy Debate*, Vol. 6, No. 1, 1995, pp. 103-139.

- \* Richard Green, Steve Malpezzi, and Kerry D. Vandell, "Urban Regulation and the Price of Land and Housing in Korea," *Journal of Housing Economics*, Vol. 3, 1994, pp. 330-356.

Kerry D. Vandell, "Where Do We Go From Here? A Commentary on American Housing Policy," *Mortgage Banking*, October 1994, pp. 38-57.

Kerry D. Vandell, "Commercial Mortgage Defaults: Their Causes and Cures," Chapter 20 in *The Handbook of Real Estate Finance*, Jess Lederman and G. Benjamin Swoyer, eds., Washington, DC: Real Estate Finance Press, 1995, pp. 479-558.

- \* Kerry D. Vandell, "Handing Over the Keys: A Perspective on Mortgage Default Research," *Journal of the American Real Estate and Urban Economics Association*, Vol. 21, No. 3, Fall 1993, pp. 211-246 (AREUEA Presidential Address, January 1992).

- \* Kerry D. Vandell, Walter Barnes, David Hartzell, Dennis Kraft and William Wendt, "Commercial Mortgage Defaults: Proportional Hazards Estimation Using Individual Loan Histories," *Journal of the American Real Estate and Urban Economics Association*, Vol. 21, No. 4, Winter 1993, pp. 451-480.

- \* Kerry D. Vandell and Charles Carter, "Retail Store Location and Market Analysis: A Review of the



Research," *Journal of Real Estate Literature*, Vol. 1, No. 1, January 1993, pp. 13-45.

- \* Kerry D. Vandell, "Predicting Commercial Mortgage Foreclosure Experience," *Journal of the American Real Estate and Urban Economics Association*, Vol. 20, No. 1, 1992, pp. 55-88. Also published as Salomon Brothers Bond Market Research Working Paper, March 1990.
  - \* Kerry D. Vandell and Timothy Riddiough, "On the Use of Auctions as a Disposition Strategy for RTC Real Estate Assets: A Policy Perspective," *Housing Policy Debate*, Vol. 3, No. 1, 1992, pp. 117-141.
  - \* Kerry D. Vandell, "Optimal Comparable Selection and Weighting in Real Property Valuation," *Journal of the American Real Estate and Urban Economics Association*, Vol. 19, No. 2, Summer 1991, pp. 213-239.
  - \* Kerry D. Vandell and Timothy Riddiough, "The Impact of RTC Dispositions on Local Housing and Real Estate Markets," *Housing Policy Debate*, Vol. 2, Issue 1, 1991, pp. 49-92.
  - \* Kerry D. Vandell and Jonathan Lane, "The Economics of Architecture and Urban Design: Some Preliminary Findings," *Journal of the American Real Estate and Urban Economics Association*, Vol. 17, No. 2, Summer 1989, pp. 235-260.
  - \* Kerry D. Vandell, "Market Analysis: Can We Do Better?," *Appraisal Journal*, Vol. LVI, No. 3, July 1988, pp. 344-350.
- Kerry D. Vandell, "Reviewing Appraisals for Mortgage Underwriting Purposes," *Review Appraisal and Mortgage Underwriting Journal*, Vol. 10, No. 2, Summer 1987. Reprinted in *Principles and Techniques of Appraisal Review*, National Association of Review Appraisers and Mortgage Underwriters, 1987.
- \* Thomas G. Thibodeau and Kerry D. Vandell, "Using Multiple Regression Analysis to Determine the Accuracy of Mass Appraisals," *Property Tax Journal*, Vol. 6, No. 2, June 1987, pp. 119-141.
- Kerry D. Vandell, "An Analysis of the Credit Risk Inherent in FNMA's Recent Portfolio Acquisitions of Adjustable Rate Mortgages," in *The Federal National Mortgage Association in a Changing Economic Environment*, General Accounting Office, Washington, D.C., July 17, 1985.
- \* Kerry D. Vandell and Thomas Thibodeau, "A Generalized Model of Mortgage Default: Theory and Estimation Using Disaggregate Loan History Data," *Journal of the American Real Estate and Urban Economics Association*, Vol. 13, No. 3, Fall 1985, pp. 292-316.
  - \* Kerry D. Vandell, "On the Assessment of Default Risk in Commercial Mortgage Lending," *Journal of the American Real Estate and Urban Economics Association*, Vol. 12, No. 3, Fall 1984, pp. 270-296.
  - \* Kerry D. Vandell and Robert H. Zerbst, "Estimates of the Effect of School Desegregation Plans on Housing Values Over Time," *Journal of the American Real Estate and Urban Economics Association*, Vol. 12, No. 2, Summer 1984, pp. 109-135.
  - \* Kerry D. Vandell, "Imperfect Information, Uncertainty, and Credit Rationing: Comment and Extension," *Quarterly Journal of Economics*, November 1984, pp. 841-863.

Kerry D. Vandell, "Real Estate Finance," Chapter 33 in Dennis Logue, editor, *Handbook of Modern*

*Finance*, New York: Warren, Gorham, & Lamont, Inc., 1984, pp. 33-1, 33-57.

- \* Arthur P. Solomon and Kerry D. Vandell, "Alternative Perspectives on Neighborhood Decline," *Journal of the American Planning Association*, Vol. 48, No. 1, Winter 1982, pp. 81-98.
- \* Kerry D. Vandell, "Mortgage Quality and the Two-Earner Family: Issues and Estimates," *Housing Finance Review*, Vol. 1, No. 2, April 1982, pp. 107-134.
- \* Kerry D. Vandell, "Toward Analytically Precise Definitions of Market Value and Highest and Best Use," *Appraisal Journal*, Vol. 50, No. 2, April 1982, pp. 253-268.
- \* Kerry D. Vandell, "The Effects of Racial Composition on Neighborhood Succession," *Urban Studies*, Vol. 18, October 1981, pp. 315-333.
- \* Kerry D. Vandell, "Toward a Model of Credit Rationing and Term Adjustment in the Mortgage Market," in C. F. Sirmans, ed., *Research in Real Estate*, Vol. I. Greenwich, CT: JAI Press, 1981, pp. 135-196.
- Kerry D. Vandell, Thomas Barry, Jay Starling, Phillip Sieb, "The Arts and the Local Economy: The Impact of Pompeii A.D. 79," *Curator*, Vol. 22, No. 3, September 1979, pp. 199-216.
- \* Kerry D. Vandell, "Multicollinearity and Reduced-Form Price Equations for Residential Markets: A Comment," *Journal of the American Real Estate and Urban Economics Association*, Vol. 7, No. 3, Fall 1979, pp. 427-436.
- \* Kerry D. Vandell and Michael O'Hare, "Indirect Government Aid to the Arts: The Tax Expenditure in Charitable Contributions," *Public Finance Quarterly*, Vol. 7, No. 2, April 1979, pp. 162-181.
- \* Kerry D. Vandell, "Default Risk under Alternative Mortgage Instruments," *Journal of Finance*, Vol. 33, No. 5, December 1978, pp. 1279-1298.
- \* Kerry D. Vandell, "Appraisal During Racial Transition: A Guide Toward Implementation of the AIREA Affirmative Action Program," *Appraisal Journal*, Vol. 46, No. 4, October 1978, pp. 485-498.
- \* Kerry D. Vandell and Bennett Harrison, "Racial Transition among Neighborhoods: A Simulation Model Incorporating Institutional Parameters," *Journal of Urban Economics*, Vol. 5, October 1978, pp. 441-470.
- \* Kerry D. Vandell, "Distributional Consequences of Alternative Mortgage Instruments," *Journal of the American Real Estate and Urban Economics Association*, Vol. 6, No. 2, Summer 1978, pp. 129-152.
- Kerry D. Vandell, *Growth and the Cities of the South: A Study in Diversity*, Working Paper, White House Conference on Balanced National Growth and Economic Development, 1977 (project director and principal author).
- Kerry D. Vandell and Sydney C. Reagan, "Lakewood Bank & Trust," (case and teaching note), Inter-collegiate Case Clearing House, Harvard University, 1978. Reprinted in Robert D. Hay and Edmund R. Gray, eds. *Business and Society*, South-Western Publ., 1980 and in Tom L. Beauchamp, *Textbook in Business Ethics*, Prentice-Hall, 1982.
- Sydney C. Reagan and Kerry D. Vandell, "Starnes Investments I and II," (case and teaching note),

Intercollegiate Case Clearing House, Harvard University, 1978.

Kerry D. Vandell and Bennett Harrison, "Racial Transition in Neighborhoods: A Simulation Model Incorporating Institutional Constraints," working paper No. 39, Joint Center for Urban Studies of M.I.T. and Harvard, April 1976.

Kerry D. Vandell, Barbara Hodis, and Rachel Bratt, "Financial Institutions and Neighborhood Decline: A Review of the Literature," (Summary and Conclusions), in U.S., Congress, Senate, "Home Mortgage Disclosure Act of 1975 -- Part I," Hearings before the Committee on Banking, Housing and Urban Affairs, 94th Congress, 1st Session, May 5-8, 1975, pp. 614-622.

Lester Salamon, project director, *The Money Committees*, Ralph Nader Task Force on Congress, Grossman Publishers, New York, 1975 (research associate).

**Research in Progress:**

"Subprime Lending and the Housing Bubble: Tail Wags Dog?" (with Michael Lacour-Little)

"The Economics of Manufactured Home Communities," working paper

"An Anatomy of Vacancy Behavior in the Real Estate Market," working paper (with Yongping Liang).

"Does Uncertainty in Future Tax Treatment Affect the Market? A Real Options View," working paper.

"The Potential Impact of Internet Technology on Retail Sales and State and Local Sales and Use Tax Receipts: an Update," with Zhenguo Lin and Henry Pollakowski (MIT), working paper prepared under a grant sponsored by the International Council of Shopping Centers, the U.S. Conference of Mayors, and the National Association of County Officials.

"Tax Structure and Natural Vacancy Rates in the Commercial Real Estate Market: A Real Options Approach under Stochastic Demand Growth," working paper.

"Estimating Property Value by Replicating One," working paper (with Tsong-Yue Lai and Ko Wang).

"The Economics of Architecture and Urban Design: An Updated Look and Examination of the Flight to Quality Hypothesis."

"Optimal Listing Price and Bid Acceptance Strategies for Residential Sales," with Richard K. Green.

"Robert Weaver's Contribution to Housing and Municipal Finance," with Michael Stegman.

"Opportunities for Enhancing Efficiency in the Section 42 Low-Income Housing Tax Credit Program," with Steve Malpezzi, under revision, prepared under contract with the Mortgage Bankers Association.

"Stigma Value: Theory and Estimates."

"Retiring Early: an Empirical Analysis of the Mortgage Curtailment Decision" (with Qiang Fu). Working paper derived from Fu's dissertation, which won the AREUEA Dissertation Award.

"Pricing of the Design Amenity: Theory and Estimates" (with Richard Green).

"The Dynamics of Land Use Transition from Agricultural to Recreational Use: A Case Study of the Kickapoo Valley" (with Pat Connolly).

"A Formal Model of 'Optimal' Sprawl."

"Solving the Time-on-Market/ Sales Price Puzzle."

"The Homeownership Tax Credit and Down Payment Constraints." Manuscript completed in satisfaction of Ford Foundation grant evaluating the policy feasibility of a homeownership tax credit.

"Opportunities for Enhancing Efficiency in the Section 42 Low-Income Housing Tax Credit Program" (with Steve Malpezzi).

"Environmental Justice: An Economic Perspective."

### **Paper Presentations**

"Optimal Sprawl," presented at the Asian Real Estate Society Meetings," Macau, July 9-12, 2007.

"Missing the Sweet Spot? The Economics of Manufactured Home Communities," presented at the Midyear Meetings of the American Real Estate and Urban Economics Association, Washington D.C., May 29-30, 2007.

Yongping Liang and Kerry D. Vandell, "The Anatomy of Vacancy Behavior: Implications for the Rental Adjustment Process," Allied Social Sciences Association meeting, Chicago, January 2007.

"Expanding the Academic Discipline of Real Estate Valuation." Invited Keynote Address, Eleventh Annual Meeting of the World Valuation Congress, Kuala Lumpur, Malaysia, May 2006.

Zhenguo Lin and Kerry D. Vandell, "Illiquidity and Pricing Biases in the Real Estate Market." Invited presentation, Gutmann Center for Portfolio Management Symposium on Alternative Investments, University of Vienna, March 2006.

Yongping Liang and Kerry D. Vandell, "What Can We Really Learn from Vacancy Behavior in the Real Estate Market? A Theoretical Perspective," Annual Meeting of the American Real Estate and Urban Economics Association, Boston, January 2006.

"Illiquidity and Pricing Biases in the Real Estate Market." Invited seminar, University of California-Irvine Department of Finance, October 2005.

"The Arts and Local Economic Development," invited Distinguished Lecture in Arts and Cultural Policy, University of Alabama – Tuscaloosa. Series of lectures, roundtable discussions, consulting sessions to aid in development of an arts and cultural policy strategy for the City and University, November 2004.

"What is the Long-Term Future of Manufactured Housing? A Framework for Analysis," invited presentation before the Urban Land Institute Manufactured Housing Council, New York City, November 2004.

"Perspectives on the Economics of Architecture and Urban Design," Lusk Center for Real Estate, Research Seminar Series, November 2004.

Tsong-Yue Lai, Kerry D. Vandell, and Ko Wang, "Estimating Property Value by Replicating One," Asian Real Estate Society Meetings, New Delhi India, August 2004.

"Does Uncertainty in Future Tax Treatment Affect the Market? A Real Options View," International AREUEA Conference, Fredericton, New Brunswick, Canada, July 2004.

Zhenguo Lin and Kerry D. Vandell, "Liquidity and Pricing Biases in the Real Estate Market," American Real Estate Society Meetings, Captiva Island FL., April 2004.

"The Chicago Climate Exchange and Market-Based Approaches to Environmental Regulation: Suspect or Savior?" Invited Address, Sustainability and the Global Environment (SAGE) Seminar, Institute for Environmental Studies, University of Wisconsin-Madison, March 2004.

"TIF's: The Mutation of a Good Idea," presented before the Capitol Neighborhoods Association Forum, Madison WI, January 2004.

"Tax Structure and Natural Vacancy Rates in the Commercial Real Estate Market: A Real Options Approach under Stochastic Demand Growth," ASSA Annual Meetings, San Diego, January 2004.

"Strategic Management Issues in the Secondary Mortgage Markets," Invited Keynote Address, Freddie Mac National Multifamily Leadership Conference, Kohler WI, September 2003.

"Tax Structure and Natural Vacancy Rates in the Commercial Real Estate Market," ASSA Annual Meetings, Washington, D.C., January 2003.

Zhenguo Lin and Kerry D. Vandell, "Could Investors Profit from the Predictability of Real Estate Returns?" ASSA Annual Meetings, Washington, D.C., January, 2003.

"Implications of Recent Basel Accord Changes on the Global Real Estate Lending Environment," invited presentation to the Real Estate Roundtable, Washington, D.C., May 2003.

Zhenguo Lin and Kerry D. Vandell, "Illiquidity and Real Estate Pricing" ASSA Annual Meetings, Atlanta, January 2002.

Kerry D. Vandell and Richard K. Green. "The Impact of Technology and the Internet on Commercial Real Estate," presented at the International Real Estate Society Meetings, Anchorage Alaska, July 2001.

Zhenguo Lin and Kerry D. Vandell, "Illiquidity and Real Estate Pricing," Asian Real Estate Society Meetings, Tokyo, August 2001.

"Brainstorming the Future of the American City," Invited Presentation, Government Finance Officers Association Summer Workshop, Madison, WI, August 2001.

Kerry D. Vandell and Richard K. Green, "The Impact of Technology and the Internet on Commercial Real Estate," presented at the International Real Estate Society Meetings, Girdwood, Alaska, July 2001

"Brainstorming the Future of the American City," invited Presentation, Counselors of Real Estate Spring Meeting, May 2001.

“Providing Housing Opportunity by Encouraging Mortgage Market Development and Competition.” Invited Presentation to the Public Policy Forum on Regionalism and Fair Housing, sponsored by the Federal Reserve Bank of Chicago and the Housing Opportunity Partnership of Southeastern Wisconsin, Milwaukee, January 2001.

Charles Carter and Kerry D. Vandell, “Bid Rent vs. Agglomeration Economies as Alternative Theories of Store Location within Shopping Centers,” presented at the ASSA Annual Meetings, New Orleans, January 2001.

Qiang Fu, Michael Lacour-Little, and Kerry D. Vandell, “Commercial Mortgage Prepayments under Heterogeneous Prepayment Penalty Structures,” presented at the Financial Management Association (FMA) Meetings, Seattle, November 2000. Paper was awarded First Place, Competitive Paper Award for Fixed Income Research, sponsored by the Fixed Income Analysts Society.

“Estimates of E-Commerce Penetration Rates into Retail Market Sales by Product Line and State: 2000 – 2010,” invited presentation before the International Council of Shopping Centers Fall Research Conference, Washington, D.C., November 2000.

“E-Commerce Penetration into Space-Based Retailing and Sales Tax Receipts,” invited presentation before the Congressional Real Estate Caucus, U.S. Capitol Building, Washington, D.C., sponsored by the Real Estate Roundtable, October 2000.

“Securitization of Japanese Real Estate: Necessary Conditions, the Promise, and the Pitfalls,” invited Keynote Address, Seventh International Land Policy Forum, Tokyo, sponsored by the National Land Agency, Prime Ministers Office, Government of Japan, October 2000.

Qiang Fu, Michael Lacour-Little, and Kerry D. Vandell, “Commercial Mortgage Prepayments under Heterogeneous Prepayment Penalty Structures,” invited presentation, University of Kentucky Distinguished Lecture Series in Real Estate and Urban Economics, October 2000.

Kerry D. Vandell and Richard K. Green, “The Impact of Technology and the Internet on Commercial Real Estate,” invited presentation before the *Transact 2000* Conference, National Association of Realtors, Chicago, September 2000.

Charles Carter and Kerry D. Vandell, “Bid Rent vs. Agglomeration Economies as Alternative Theories of Store Location within Shopping Centers,” presented at the Asian Real Estate Society Meetings, Beijing, July 2000.

“A Perspective on our State of Understanding and Evaluation of Mortgage Credit Risk,” invited presentation, Federal Reserve Board Research Department, Washington, D.C., June 2000.

“Multifamily Finance: A Pathway to Housing Goals, a Bridge to Commercial Mortgage Market Efficiency,” presented at the Mid-Year AREUEA Meetings, Washington, D.C., May 2000.

“U.S. Multifamily Housing as an Appropriate Investment Vehicle Diversified Investors,” invited lectures, Frankfurt and Hamburg, Germany, sponsored by Ernst & Young/Europe, May 2000.

Kerry D. Vandell and Richard K. Green, “The Impact of Technology and the Internet on Commercial Real Estate,” presented at the Spring Board Meeting, Center for Urban Land Economics Research, Chicago, April 2000.



"A Critical Assessment of the Claims of the New Urbanism," invited presentation, School of Architecture and Planning Lecture Series, University of Wisconsin – Milwaukee, March 2000.

Kerry D. Vandell and Henry Pollakowski, "E-Commerce Penetration into the Space-Based Retail Market and State and Local Sales and Use Tax Receipts: A Research Perspective," invited presentation before the International Council of Shopping Centers Research Advisory Task Force Meeting, Orlando, February 2000.

Qiang Fu, Michael Lacour-Little, and Kerry D. Vandell, "Commercial Mortgage Prepayments under Heterogeneous Prepayment Penalty Structures," presented at the ASSA Annual Meetings, Boston, January 2000.

"Housing Affordability, Homeownership, and Mortgage Credit Availability and Cost: Defining the Nexus," invited presentation to the National Homeownership Summit, sponsored by the Mortgage Bankers Association of America, University of Virginia, October 1999.

"Proper Consideration of Business Enterprise Value and Housing Subsidies in the Assessment of Commercial Property," invited presentation, State of Wisconsin Department of Revenue Training Meetings, Wisconsin Rapids, October 5, 1999.

"Valuation of Real Estate Investment Trust Assets," invited presentation, Municipal Assessors Institute Meetings, Middleton, WI, September 16, 1999.

"Critical Issues in the Allocation of Business Enterprise vs. Real Estate Value Estimates," invited presentation. Appraisal Institute National Summer Conference, Orlando, June 26, 1999.

"Proper Consideration of Business Enterprise Value and Housing Subsidies in the Assessment of Commercial Property," invited presentation, University of Wisconsin Law School Spring Forum, Madison, May 21, 1999.

"Defining Sprawl and Examining Its Broader Causes," invited presentation, Congressional Forum on Smart Growth, sponsored by the Congressional Real Estate Caucus and the Real Estate Roundtable, Washington, D.C., May 16, 1999.

"Brainstorming the Future of Wisconsin's Cities," invited presentation, Wisconsin Community Development Institute Conference, Madison, May 7, 1999.

Invited participation in Town Hall Meeting panel on "Growing Pains: Dealing with Urban Growth and Sprawl," sponsored by *Wisconsin State Journal* and Celebrate 2000, Middleton, May 1999. Panel included Kathleen Falk, Richard Williams (Police chief), Bill Malkasian (Wisconsin Realtors), representative from State Towns Association. Rebroadcast a number of times on television.

"Impact of the Russian Bond Default on the U.S. Real Estate Market," Invited Presentation, National Association of Realtors Spring Conference, Atlanta, February 19, 1999.

Richard K. Green and Kerry D. Vandell, "Optimal Asking Price and Bid Acceptance Strategies for Residential Sales: Theory and Estimates," presented at ASSA Annual Meetings, New York City, January 1999.

"Understanding the Consumer Life Cycle of Credit Union Members," invited presentation, Filene

Research Institute, Toronto, October 30, 1998.

"Strategic Management of the Apartment Business in a Big REIT World," Fall Meeting, Board of Trustees, Center for Urban Land Economics Research, University of Wisconsin - Madison, September 1998.

"Optimal Asking Price and Bid Acceptance Strategies for Residential Sales," invited presentation, Price Waterhouse/Ohio State Conference on Housing and Real Estate Economics, June 1998.

"Observations on the Potential of a Home Ownership Tax Credit to Overcome Liquidity Constraints," invited presentation, Ford Foundation Roundtable on Alternatives to the Current Home Ownership Tax Deductions, Washington, D.C., March 1998

"How will the Capital Markets Affect Strategic and Operating Decisions by Apartment Owners?" invited presentation, National Multi Housing Council Annual Meeting, Boca Raton, FL, January 1998.

"Robert Weaver's Contributions to Housing and Municipal Finance," invited presentation to panel organized in honor of the contributions of the late Robert Weaver, African-American Ph.D. economist from Harvard and first Secretary of the Department of Housing and Urban Development, ASSA Meetings, Chicago, January 1998.

"Retiring Early: an Empirical Analysis of the Mortgage Curtailment Decision," with Qiang Fu and Michael Lacour-Little, ASSA Meetings, Chicago, January 1998.

"How Sustainable is Hong Kong's Booming Real Estate Market?" invited Keynote Address, Asian Real Estate Society Meetings, Hong Kong, October 1997.

"The Impact of the Tax Laws upon Homeownership Opportunities," invited presentation, Department of Real Estate and Construction, University of Hong Kong, October 1997.

"Neo-traditional Neighborhood Development: Does It Meet the Market Test?" invited presentation, Wisconsin Chapter of the American Planning Association Annual Meetings, Madison, September 1997.

"Securitization Innovations in the Markets for Real Estate Debt and Their Implications for the Correspondent Business," invited presentation, PPM Worldwide's Annual Correspondent Meeting, Lincolnshire, IL, September 1997.

"The Real Estate Market at the Millenium: A Prognosis," invited presentation, Rotary Club of Milwaukee, August 1997.

"A Perspective on the Future of Mortgage Banking in Securitized Debt Markets," invited presentation, Mortgage Bankers Association Graduate School of Commercial Real Estate Finance, Boston, July 1997.

"Environmental Justice: An Economic Perspective," invited presentation, LaFollette Institute of Public Affairs, University of Wisconsin-Madison, April 1997.

"Giving Households Credit: How Changes in the Tax Code could Promote Homeownership," invited presentation, Harvard University John F. Kennedy School of Government, February 1997.

"Environmental Justice: An Economic Perspective," ASSA Meetings, New Orleans, January 1997.



Visiting Scholar, Federal National Mortgage Association, Washington, D.C., invited presentation on "Giving Households Credit: How Changes in the Tax Code Could Promote Home Ownership," with Richard Green, November 1996.

"How Will the Upcoming National Elections Affect the Real Estate Market?", invited presentation, Annual Minnesota Real Estate Conference, Minneapolis, October 1996.

Visiting Scholar, Federal Reserve Board, Washington, D.C., invited presentation on "Giving Households Credit: How Changes in the Tax Code Could Promote Home Ownership," with Richard Green, October 1996.

"Critical Issues Affecting the Economic Potential of the New Urbanism Movement," invited presentation, U.W. - Milwaukee Conference on the New Urbanism and Neotraditional Neighborhood Development, Milwaukee, October 1996.

"Evolution of Our Understanding of Commercial Mortgages as Investments," invited presentation before Century Investment Management Co. Correspondent Meeting, Madison, September 1996.

"A Perspective on the Evolving Role of the Commercial Mortgage Banker in an Increasingly Securitized World," invited presentation, Mortgage Bankers Association School of Advanced Commercial Real Estate Finance, Madison, WI, July 1996.

"The Potential for Secondary Market Development in Indonesia," Conference on Real Estate Issues, Universitas Tarumanagara, Jakarta, Indonesia, June 1996.

"The Performance of Commercial Mortgages," invited presentation, Chinese University of Hong Kong Finance Seminar, June 1996.

"Giving Households Credit: How Changes in the Tax Code Could Promote Home Ownership," with Richard Green, Midyear AREUEA meetings, Washington, D.C., May 1996.

"A Historical Perspective on the Evolution of Multi-manager Data Bases in the Commercial Market and Their Potential for Encouraging Multifamily Securitization," invited presentation, Multifamily Housing Institute Symposium, Washington, D.C., May 1996.

"The Benefits of a Web-Based Market Performance Data Base," invited presentation, IREM Forecast Conference, Milwaukee, January 1996.

"The Allocation of Enterprise Value in the Assessment of Retail Properties," invited presentation, Texas Association of Appraisal Districts, January 1996.

"The Section 42 Low-Income Housing Tax Credit: Does It Add to the Multifamily Housing Stock?", with Steve Malpezzi, ASSA Meetings, San Francisco, January 1996.

"Changes in Tax Policy and the Homeownership Rate," with Richard Green, invited presentation to the Price Waterhouse/Ohio State Conference on Housing and Real Estate Economics, Columbus, OH, July 19-22, 1995.

"Optimal Listing Price and Bid Acceptance Strategies for Residential Sales," invited lecture, University of British Columbia Faculty in Urban Land Economics, March 24, 1995. Also presented at ASSA Annual Meetings, Washington, D.C., January 1995.

Series of invited lectures in Cleveland, Ohio as Distinguished Lecturer, Cleveland State University, November 6-8, 1995. "Changes in Tax Policy and the Homeownership Rate," lecture before faculty of Finance; "The Outlook for Commercial Mortgage Securitization," lecture before Mortgage Bankers Association of Greater Cleveland.

"A Rational Model of the Neighborhood Revitalization Process," presented before Community Ergonomics Seminar, Department of Industrial Engineering, University of Wisconsin - Madison, May 3, 1995.

"How Ruthless is Mortgage Default?", University of Wisconsin - Milwaukee Finance Seminar, October 1994.

"How Ruthless is Mortgage Default?", FNMA Roundtable on Recent Innovations in Pricing Mortgages and Mortgage-Backed Securities, September 1994.

"Market Factors Affecting Spatial Heterogeneity Among Urban Neighborhoods," FNMA Annual Housing Conference, Washington, D.C., May 1994

"Performance of Commercial Mortgages as an Asset Class in Institutional Portfolios," with Tony Ciochetti, presentation before Senior Management, Travelers Realty Investment Company, Hartford, April 1994.

"Toward an Index of Commercial Mortgage Performance," Conference on Innovations in Mortgage Securitization sponsored by Global Business, Inc., New York City, April 1994.

"Market Considerations in the Choice of Tenure in Urban Environments," presented before the North American Research Program Inaugural Conference, Land Tenure Center, Madison, March 1994.

"Performance of Commercial Mortgages as an Asset Class in Institutional Portfolios," with Tony Ciochetti, ASSA Annual Meetings, Boston, January 1994.

"Demographic Trends and Their Effects on the Development of Residential Real Estate," presentation before Heartland Development Executive Leadership Program, 1994.

"Indian Gaming: Issues and Implications for Development," presentation before Urban Development/Mixed Use Council of the Urban Land Institute Spring Meeting, Orlando, 1994.

"The Impact of the Information Age on Real Estate Operations: The Case of Commercial Mortgages," presentation before Urban Development/Mixed Use Council, Urban Land Institute Fall Meeting, Boston, November 1993.

"A Market Perspective on Eastern European Property Reforms," with Steve Malpezzi, Second Annual AREUEA International Conference, Mystic, CN, October 1993.

"Business vs. Real Estate Value in Shopping Mall Valuation: An Update," International Association of Assessing Officers Annual Meeting, Washington D.C., September 1993.

"Business vs. Real Estate Value in Shopping Mall Valuation: A Critical Examination," presentation before North Carolina Assessors League Annual Meetings, Charlotte, NC, August 1993.

"International Direct Real Estate Investments as Alternative Portfolio Assets for Institutional Investors: an Evaluation," with Elaine Worzala, ASSA Meetings, Anaheim, January 1993.

"Credit Risk Diversification in Commercial Mortgage Portfolios," with Brian Ciochetti and Walter Barnes, ASSA Annual Meetings, Anaheim, January 1993.

"Operational Issues and Reporting Requirements: Commercial Mortgage Credit Risk Evaluation System," NAR Commercial Mortgage Consortium Working Group Meeting, New York City, December 1992.

"Academic Issues Relating to Disaggregate Mortgage Termination Data," Address to FNMA Roundtable on Mortgage Termination Data Needs, Washington, D.C., November 1992.

"Urban Regulation and the Price of Land and Housing in Korea," with Richard Green and Steve Malpezzi. Presented at AREUEA International Conference on Real Estate and Urban Economics, Redondo Beach, CA, October 1992.

"A Proposed Credit Risk Evaluation System for Commercial Mortgages," Keynote Speaker, NAR Roundtable on Commercial Mortgage Securitization, Cambridge, MA, September 1992.

"Environmental Contamination Issues Affecting the Real Estate Market," Urban Land Institute Regional Council Meeting, Milwaukee, February 1992.

"Business Value vs. Property Value in Regional Mall Valuation," Invited Speaker, International Association of Assessing Officials Symposium on Business Value Assessment, Glendale and Sacramento, CA, February 1992.

"A Contingent Claims Pricing Model for Commercial Mortgages Utilizing an Estimated Default Function" (with Walter Barnes and Eric Sondergeld), ASSA Annual Meetings, New Orleans, January 1992.

"Graaskamp and Social vs. Private Benefits and Costs" (with Charles Carter), ASSA Annual Meetings, New Orleans, January 1992.

Invited Speaker -- Texas Southern University/FNMA Seminar Series on "The Effect of RTC Dispositions on Local Housing and Real Estate Markets," November 1991.

Invited Speaker -- University of Connecticut-sponsored symposium on "Current Issues in Pricing and Underwriting Commercial Mortgages," Aetna Training Institute, Hartford, CT, November 1991.

"Business Value vs. Property Value in Regional Mall Valuation," International Association of Assessing Officials World Congress, Panel and Debate, Phoenix, October 1991.

"The Trials and Tribulations of Starting a Real Estate Center," Real Estate Center Directors and Chairholders Association, Mystic, CT, September 1991.

"Regional Mall Valuation: Business vs. Property Value Estimation," Wisconsin Assessors Institute, September 1991.

"Business vs. Property Value Estimation in Regional Mall Valuation," Wisconsin-Minnesota Workshop on Regional Mall Valuation Issues, Wisconsin Dells, August 1991.

"The Outlook for Real Estate Investment and Returns in the Twenty-First Century," International Foundation of Employee Benefit Plans Annual Meeting, White Sulphur Springs, July 1991.

"Prognosis for the Real Estate Market: Fiscal Impact on Cities," Government Finance Officers Association of the U.S. and Canada Annual Meeting, Madison, July 1991.

"Current Issues in Retail Market Research," Homer Hoyt Institute Symposium on Retail Market Issues, May 1991, also HHI-NACORE Retail Location Studies Conference, West Palm Beach, February 1991.

"The Outlook for Housing in the 1990s," Builder 100 Conference (Largest 100 homebuilders in U.S.), Tucson, May 1991.

"Evaluating Commercial Mortgage Credit Risk," Life Insurance Mortgage Underwriters Association, Milwaukee, April 1991.

"The Real Estate Market in the 1990's: Looking Forward," American Bankers Association National Real Estate Conference, New Orleans, April 1991.

Invited Participant, FNMA-Sponsored Conference on Emerging Themes in Housing Policy Research, Washington, D.C., March 1991.

"Corporate Real Estate Decision-making: A Theoretical Perspective," Industrial Development Research Council, Chicago, February 1991.

"The Impact of RTC Dispositions on Local Housing and Real Estate Markets," with Timothy Riddiough, invited presentation. Annual Meeting of the American Real Estate and Urban Economics Association, Washington, D.C., December 1990.

"Disposition Prices and Auction Strategies: Learning from the RTC," with Timothy Riddiough, invited presentation. Annual Meeting of the American Real Estate and Urban Economics Association, Washington, D.C., December 1990.

"The Economics of Architecture and Urban Design," invited presentation, MIT Center for Real Estate Development, November 1990.

"Building Design and Value," invited presentation, American Institute of Real Estate Appraisers Annual Fall Conference, San Francisco, October 1990.

"Investment Quality Ratings of Commercial Mortgages: An Update," with Walter C. Barnes. Midyear Meeting of the American Real Estate and Urban Economics Association, Washington, D.C., May 1990.

"Commercial Mortgage Defaults: Proportional Hazards Estimation Using Disaggregate Pooled Data," with David Hartzell, Walter Barnes, Dennis Kraft, and William Wendt. Annual Meeting of the American Real Estate and Urban Economics Association, Atlanta, December 1989.

"Predicting Commercial Mortgage Foreclosure Experience." Midyear Meetings of the American Real Estate and Urban Economics Association, Washington, D.C., May 1989.

"On Transaction Costs and the Default Option." Invited Presentation, University of Texas at Austin, April 1989.

"Design and Value in the Year 2010." Invited Presentation, Prudential Symposium on the Future of the Real Estate Market," Pinehurst, N.C., April 1989.

"Valuing the Design Amenity." Invited Presentation. University of Wisconsin, Madison, February 1989.

"The Economics of Architecture and Urban Design: Some Preliminary Findings." ASSA Annual Meetings, New York City, December 1988.

"Does Good Design Pay?" Invited Presentation, Industrial Development Research Council World Congress, Hilton Head, S.C., October 1988.

"The Economics of Architecture and Urban Design: Some Preliminary Findings." Invited Presentation, Committee on Taxation, Resources and Economic Development (TRED) Conference, Lincoln Institute of Land Policy, Cambridge, MA, September 1988 (with Jonathan Lane).

"The ULI Case Clearinghouse." Urban Land Institute Educational Seminar, Newport Beach, CA, August 1988.

"On Transaction Costs and the Default Option." Invited Presentation, Department of Real Estate and Urban Land Economics, University of California, Berkeley, April 1988.

"The New World of Mortgage Underwriting: Learning from Experience." Invited Presentation, University of Connecticut Seminar Series for Real Estate Financial Managers, Storrs, CT, March 1988.

"On Transaction Costs and the Mortgage Default Option," Invited Presentation, Roundtable Conference on Residential Mortgage Portfolio Risk Analysis, Sponsored by Temple, Barker & Sloane, Inc., Lexington, MA, March 1988.

"The Economics of Architecture and Urban Design," Invited Presentation, University of British Columbia Seminar Series on Land Economics, Vancouver, March 1988.

"The Use of Multiple Regression Analysis for Mass Appraisal: An Example and Primer," Texas State Property Tax Board Spring Symposium, Austin, February 1988 (with Thomas Thibodeau).

"The Economics of Architecture and Urban Design," Homer Hoyt Fellows Conference, Singer Island, Florida, January 1988.

"The Economics of Architecture and Urban Design," Annual Meeting of the American Real Estate and Urban Economics Association, Chicago, December 1987.

"On Transaction Costs and the Default Option," Decision Sciences Institute Meeting, Boston, November 1987.

"Emerging Issues in Real Estate Research: The Economics of Design and Development Finance and Economics," Real Estate Chairholders and Center Directors Meeting, Indianapolis, September 1987.

"The Economics of Architecture and Urban Design: A Research Agenda," Homer Hoyt Fellows Conference, Singer Island, Florida, January 1987.

"A Proposal for Implementation of a ULI Case Series in Urban Land Development," Urban Land Institute Roundtable Discussion on New Approaches to Development Education, Washington, D.C., September 1987.

"Transactions Costs in the Default/Foreclosure Process and Their Implications for Mortgage Pricing," Midyear Meeting of the American Real Estate and Urban Economics Association, Washington, D.C., May 1987.

"Market Analysis: Can We Do Better?" Symposium sponsored by the Homer Hoyt Institute for Advanced Studies in Real Estate and Urban Land Economics on Problems in the Appraisal Industry, Atlanta, Georgia, February 1987.

"Modeling Commercial Real Estate Loan Default: Relevance of Recent Research and Experience," Annual Meeting of the American Real Estate and Urban Economics Association, New Orleans, December 1986 (with J. Kimball Dietrich).

"An Assessment of the Credit Risk Potential of FNMA ARM Purchases," Invited Participation, Symposium on FNMA Secondary Market Activities, Sponsored by U.S. General Accounting Office, Washington, D.C., February 7, 1985.

"A Generalized Model of Mortgage Default: Theory and Estimation Using Disaggregate Loan History Data," Annual Meeting of the American Real Estate and Urban Economics Association, San Francisco, December 1984 (with Thomas Thibodeau).

"A Generalized Model of Mortgage Defaults," Invited Participation, Seminar on Recent Mortgage Default Risk Research, Sponsored by Temple, Barker, and Sloane, Lexington, MA, October 5, 1984.

"A Generalized Model of Mortgage Default and Prepayment Using FRM Data to Simulate AMI Performance," Invited Participation, HUD-Sponsored Conference on the Mortgage Default and Prepayment Option, Columbus, OH, October 17-19, 1984.

"Estimates of the Effect of School Desegregation Plans on Housing Values Over Time," Annual Meeting of the American Real Estate and Urban Economics Association, San Francisco, December 1983.

"Toward a Formal Model of the Real Estate Transactions Process," Annual Meeting of the American Real Estate and Urban Economics Association, New York City, December 1982.

"Mortgage Quality and the Two-Earner Family: Issues and Estimates," Annual Meetings of the American Real Estate and Urban Economics Association, Washington, D.C., December 1981.

"Residential Succession and Race," Invited Presentation, Seminar on Housing Policy, Massachusetts Institute of Technology, Boston, MA, May 2, 1981.

"Issues of Urban Growth in the Southwestern United States: Land Use Issues," Invited Presentation, Southwestern Economics Association, Dallas, TX, March 26, 1981.

"Toward a Model of Credit Rationing and Term Adjustment in the Mortgage Market," Invited Lecture, Department of Finance and Real Estate, Ohio State University, Columbus, OH, October 9, 1980.

"Alternative Perspectives on Neighborhood Decline," Joint Session of the American Real Estate and Urban Economics Association and the American Economics Association, ASSA Annual Meetings,



Denver, August 1980 (with Arthur P. Solomon).

"Residential Succession and Race," Joint Session of the American Real Estate and Urban Economics Association and the Regional Science Association, ASSA Annual Meetings, Atlanta, December 1979.

"Credit Rationing and Term Adjustment in the Mortgage Market: A Model with Empirical Estimates," Financial Management Association Annual Meetings, Boston, October, 1979.

"Cities of the South: A Study in Diversity," Symposium on "Dallas Development: Perspectives on People and Policies," University of Texas at Dallas, Dallas, TX, February 15, 1979.

"Credit Rationing and Term Adjustment in the Mortgage Market: A Model with Empirical Estimates," Invited Lecture, Department of Real Estate and Urban Development, University of Georgia, Athens, GA, January 13, 1979.

"Default Risk under Alternative Mortgage Instruments," American Real Estate and Urban Economics Association, ASSA Annual Meetings, New York City, December 28, 1977.

"The Distributional Effects of the Introduction of Alternative Mortgage Instruments upon Homeownership, Housing Consumption and Debt vs. Equity Financing: An Econometric Analysis," Midyear meetings of the American Real Estate and Urban Economics Association, Washington, D.C., May 23, 1977.

"The Economics of Open Space," Conference on "The Open Space Pay-off," Southern Methodist University, Dallas, Texas, January 28, 1977.

"Is a Viable Downtown Really Necessary?" Conference on "What's Up for Downtown Dallas," Dallas, TX, June 30, 1976.

"Racial Transition in Neighborhoods: A Simulation Model Incorporating Institutional Constraints," North American Meetings of the Regional Science Association, Cambridge, MA, November 7-9, 1975.

"A Simulation Model of the Ghetto Expansion Process," American Institute of Planners Confer-In 1974, Denver, CO, October 26-30, 1974 (with Bennett Harrison).

#### **Paper Discussant and Session Chairman**

Asian Real Estate Society Annual Meetings, Macau (session chair and discussant for two papers), July 2007

Symposium on Innovations in the Real Estate Market, Regensburg University, Germany (discussant), June, 2007.

Allied Social Sciences Association Annual Meetings, Chicago (session chair, discussant for 4 papers), January 2007

Asian Real Estate Society and the American Real Estate and Urban Economics Association Joint International Meeting, Vancouver, B.C., Canada (discussant for 3 papers and session chair, Board of Directors meeting for AsRES), June 2006.

Lusk Center for Real Estate 2006 Rena Sivitanidou Annual Research Symposium on "Models and Stories: Understanding the Long Processes of Cities," University of Southern California (discussant) March, 2006.

Asian Real Estate Society Meetings, New Delhi India (discussant and session chair), August 2004.

AREUEA International Meetings, Fredericton, New Brunswick Canada (discussant (2 papers)), July 2004.

American Real Estate Society Meetings, Captiva Island FL, April 2004 (panel participant)

ASSA Meetings, San Diego, January 2004 (discussant and session chair).

ICSC Fall Regional Forum, Minneapolis, panel on the future of the regional mall. Chair and moderator, 2003.

Sub-Prime Lending Symposium, Washington, D.C., sponsored by the Credit Research Center, Georgetown University. Discussant of papers "Are Subprime Mortgages Fairly Priced?" by Elaine Fortowsky and Michael LaCour-Little, and "High LTVs and Credit Risk," by Brent W. Ambrose and Anthony B. Sanders, 2002.

*The Tools of Government*, symposium sponsored by the Johns Hopkins University Institute for Policy Studies, the General Accounting Office, the Congressional Budget Office, and the Office of Management and Budget (Washington, D.C.). Commentary on tax policy with respect to homeownership, effectiveness of the tax credit mechanism for the provision of affordable rental housing, and alternative structures for the FHA mortgage insurance program, 2002.

ASSA Meetings, Washington, D.C., January 2003 (discussant).

Organizer and Chair, Big 10 Real Estate Conference, Chicago, session on "To REIT or Not to REIT? What is the Future of the Multifamily Market?" 2002.

Chair, session on "Mortgage Markets," Asian Real Estate Society Meetings, Tokyo, August 2001.

Asian Real Estate Society Meetings, Tokyo, August 2001

Asian Real Estate Society Meetings, Beijing, July 2000

ASSA Meetings, Boston, January 2000

ASSA Meetings, New York, January 1999

Center for Urban Land Economics Research Symposium on Retail Market Dynamics (chair and organizer) sponsored by International Council of Shopping Centers and Homer Hoyt Institute

ASSA Meetings, New Orleans, January 1997

Homer Hoyt Institute Symposium on Current Developments in the CMBS Market, May 1997 (program chairman)



AREUEA Midyear Meetings, Washington, D.C., May 1996

ASSA Meetings, San Francisco, January 1996

AREUEA Midyear Meetings, Washington, D.C., May 1995

ASSA Meetings, Washington, D.C., January 1995

ASSA Meetings, Boston, January 1994

IAAO Meetings, Washington, D.C., September 1993

Homer Hoyt Spring Meetings, Singer Island, FL, May 1993

ASSA Meetings, Anaheim, CA, January 1993

AREUEA International Conference, Redondo Beach, CA, October 1992

Urban Land Institute Education Seminar, Los Angeles, October 1992

ASSA Meetings, New Orleans, January 1992

Homer Hoyt Fellows Symposium, Singer Island, FL, January 1991

National Association of Corporate Real Estate Executives/Homer Hoyt Institute Joint Symposium on Site Selection Policy, Singer Island, FL, February 1991

LaFollette Institute Conference on American Housing Policy, Madison, May 1991

Homer Hoyt Symposium on Retail Market Research Issues, Singer Island, Florida, May 1991 (program chairman)

AREUEA Annual Meeting, Washington, D.C., December 1990 (session chair)

AREUEA Annual Meeting, Atlanta, December 1989(program chairman)

AREUEA Annual Meeting, New York, December 1988 (session chair and discussant for two sessions)

AREUEA Annual Meeting, Chicago, December 1987 (two sessions)

Roundtable Discussion of the Implications of Recent Regulatory Initiatives for the Appraisal Profession, Washington, D.C., May 1987

Homer Hoyt Postdoctoral Fellows Symposium, Singer Island, FL, March 1987

AREUEA Annual Meeting, New Orleans, December 1986 (two sessions)

Session Chair, "Winners and Losers in Declining Real Estate Markets," Seminar Sponsored by the Lincoln Institute of Land Policy and the MIT Center for Real Estate Development, Phoenix, February 1986

AREUEA Annual Meeting, New York City, December 1985 (Discussant and Session Chair)

Financial Management Association Annual Meeting, Toronto, October 1984

AREUEA Annual Meeting, San Francisco, December 1983

AREUEA Annual Meeting, New York City, December 1982 (Discussant and Session Chair)

Southwest Society for Economists Annual Meetings, Dallas, March 1982

AREUEA Annual Meeting, Washington, D.C., December 1981

Southwest Society for Economists Annual Meetings, New Orleans, March 1981

Southwest Finance Association Annual Meetings, San Antonio, April 1980

AREUEA Midyear Meetings, Washington, D.C., May 1979

ASSA Annual Meetings, Chicago, August 1978

Southwest Economics Association Annual Meetings, Fort Worth, April 1978

#### **Editorial and Review Activities**

- 2003-06 Co-Editor, *Real Estate Issues*
- 1999- Editorial Board, *Journal of Real Estate Research*
- 1998- Editorial Board, *International Real Estate Review*
- 1992-03
- 2006- Editorial Board, *Journal of Housing Research*
- 1991-97 Co-Editor, *Real Estate Economics* (formerly the *Journal of the American Real Estate and Urban Economics Association*)
- 1992-2003 Advisory Board, *Real Estate Workout and Asset Management Newsletter* (Warren, Gorham, and Lamont)
- 1992- Member, Housing Policy Advisory Board, Federal National Mortgage Association (FNMA), (later, Editorial Advisory Board, Fannie Mae Foundation) Washington, D.C. (acts as editorial board for *Housing Policy Debate*)
- 1990- Editorial Board, *Land Economics*
- 1991-95 Editorial Board, *Journal of Property Research* (U.K.)
- 1987-89 Editor, Case Series on Real Estate Development, sponsored by the Urban Land Institute
- 1988-89 Editor, Special Issue of *Journal of Real Estate Finance and Economics* on Real Estate Development
- 1981-91, 97- Editorial Board, *Journal of the American Real Estate and Urban Economics Association* (since 1996, *Real Estate Economics*)
- 1989- Editorial Board, *Journal of Real Estate Finance and Economics*

Ad-hoc Refereeing for:

*Regional Science and Urban Economics*  
*Journal of Housing Economics*

Research Grants Council of Hong Kong Secretariat  
*Journal of Policy Analysis and Management*  
*Journal of Risk and Insurance*  
*Journal of Urban Economics*  
 National Science Foundation, Division of Social and Economic Sciences  
*Journal of Housing Research*  
*Journal of Finance*  
*Housing Policy Debate*  
*Quarterly Journal of Economics*  
*Housing Studies*  
*Journal of Real Estate Research*  
 JAI Press (*Research in Real Estate*)  
*International Regional Science Review*  
*Public Finance Review*  
*Management Science*  
*Financial Management*  
*Urban Studies*  
*Housing Finance Review*  
*Financial Review*  
 Fannie Mae Foundation  
 Prentice Hall  
 National Association of Home Builders  
 Urban Land Institute  
 Department of Housing and Urban Development (for the *Journal Cityscape*)

#### **Funded Research and Other Programmatic Initiatives**

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|------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2001 | \$34,375. International Council of Shopping Centers for an extension of a project evaluating the potential impact of e-Commerce penetration on the retail market and sales tax receipts.                                                                                                                                 |
| 1999 | \$20,000. National Association of Realtors for an evaluation of the impact of technology on real estate, presented at the fall <i>Transact 2000</i> Conference in Chicago (with Richard Green)                                                                                                                           |
| 1999 | \$63,853. International Council of Shopping Centers, U.S. Conference of Mayors, National Association of Counties, for an evaluation of the potential impact of e-Commerce penetration on the retail real estate market and sales tax receipts (U.W.-Madison portion of grant, co-investigator Henry Pollakowski of MIT). |
| 1998 | \$50,500. Ford Foundation for "An Evaluation of the Potential of Transforming the Homeownership Tax Credit to Overcome Down Payment Constraints" (my portion of a larger grant). Attended and made presentation at a meeting of all researchers on the project at Ford Foundation headquarters in New York in July.      |
| 1998 | \$10,000. Real Estate Research Institute for an evaluation of the impact of prepayment penalties on the prepayment behavior of multifamily mortgages (with Michael Lacour-Little, Citicorp Mortgage).                                                                                                                    |
| 1998 | \$5,000. ChrisKen Realty Advisors to support the acquisition and maintenance of a cross-sectional longitudinal data base on employment, demographic, and economic conditions in American MSAs.                                                                                                                           |

- 1997        \$7,500. Credit Union National Association (CUNA), for an evaluation of factors influencing account termination in credit unions.
- 1996        \$9,000. Trout Unlimited, for an evaluation of real estate market dynamics in the Kickapoo River Valley.
- 1996        \$2,500. Federal Reserve Bank of Kansas City for a study on "Improving Secondary Markets in Rural America".
- 1995        \$2,000. Fannie Mae, Washington, D.C., for an evaluation of FHA restructuring options.
- 1994        \$40,000. Exxon Corporation, Dallas, Texas, for an evaluation of environmental justice issues as they relate to the location of large refinery facilities in urban districts.
- 1994        \$15,000. Mortgage Bankers Association, Washington, D.C., for an evaluation of opportunities to enhance the efficiency of the Section 42 Low Income Housing Tax Credit Program, with Steve Malpezzi.
- 1994        \$20,000. The Real Estate Research Institute, for an econometric investigation of variations in regional mall returns using disaggregate data from the National Council of Real Estate Investment Fiduciaries, with Jim Shilling and Mark Eppli.
- 1994        \$2,000. Fannie Mae, Washington, D.C., for a manuscript evaluating market influences affecting neighborhood heterogeneity.
- 1994        \$2,000. Fannie Mae, Washington, D.C., for a manuscript evaluating the extent to which mortgage default appears to be exercised "ruthlessly."
- 1993        \$15,000. Federal National Mortgage Association, for Spring Seminar Series on Multifamily Securitization.
- 1993        \$60,000. (over 3 years) Mortgage Bankers Association, Washington, D.C., for Distinguished Lecture Series in Real Estate Finance, Graduate Fellowships, and other Programmatic Initiatives.
- 1993        \$15,000. National Association of Realtors, Washington, D.C. Herbert U. Nelson Foundation, for development and estimation of optimal asking price strategies for real property sales (with Richard Green).
- 1992        Approximately \$135,000 annually. State of Wisconsin, dedication of real estate license fees. Successfully lobbied legislature and Governor for legislation establishing funding base for Center for Urban Land Economics Research.
- 1992        \$30,000. National Association of Realtors. Commercial Mortgage Credit Risk Consortium Technical Consultant. Development of Credit Risk Rating System, benchmark for pricing, underwriting, securitizing commercial mortgages.
- 1992        \$15,000. Homer Hoyt Institute, Washington, D.C., for various departmental initiatives.
- 1991        \$20,000. Homer Hoyt Institute, Washington, D.C., for various departmental initiatives.

- 1991 \$5,000. LaFollette Institute, for analysis of determinants of housing abandonment (with James Shilling).
- 1991 \$5,000. Federal National Mortgage Association for "Survey of Mortgage Borrowers: A Pilot Study" (with Peter Zorn and Bob Avery, Cornell University).
- 1990 \$1,000. Federal National Mortgage Association for investigation into potential impact of RTC dispositions on local housing and commercial real estate markets.
- 1990 \$25,000. Homer Hoyt Institute, Washington, D.C., for Real Estate Center Development (\$3,000), development of retail conference (\$2,000), economics of architecture project continuation (\$7,500), and optimal disposition strategies for real estate assets (\$2,500), discretionary allocation (\$10,000).
- 1989 \$10,000, Urban Land Institute and \$10,000, Homer Hoyt Institute, Washington, D.C. Continuation of Research Program on the Economics of Architecture and Urban Design.
- 1988 \$5,000. Homer Hoyt Institute, Washington, D.C., for the purpose of identifying and bringing together an interdisciplinary research group concerned with the economics of architecture and urban design.
- 1987 \$10,000. Urban Land Institute, Washington, D.C. Development of strategy for introduction of teaching case material on development into the educational program of the ULI, and editorial responsibilities, casebook series on Real Estate Development.
- 1987 \$3,000. Urban Land Institute, Washington, D.C. "The Economics of Architecture and Urban Design." An empirical analysis of the Boston office market and the relationship between design quality and operating performance.
- 1986-87 \$20,000. Urban Land Institute, Washington, D.C., Case Development in Public Policy and the Land Development Process (through the Folsom Institute for Development and Land Use Policy).
- 1984-85 \$4,950. General Accounting Office, Washington, D.C., "An Assessment of the Credit Risk Potential in FNMA ARM Purchases," Simulation of comparative default profiles of standard and adjustable rate loans based upon generalized default models.
- 1983-84 \$6,164. Federal Home Loan Bank Board, Washington, D.C., "An Improved Methodology for Mortgage Loan Underwriting." Development of a model of mortgage default risk estimation suitable for underwriting alternative mortgage instruments.
- 1982-83 \$5,000. Texas Real Estate Research Center, for research into the nature of the real estate transactions process.
- 1977-84 Summer Research funded through Edwin L. Cox School of Business Trimester Research Fellowship Program.
- 1974 Research Assistant, project on the Economic Aspects of Arts Policy, specifically questions relating to normative aspects of resource allocation and the implications of alternative tax policies. Sponsored by Albert Farwell Bemis Fund.

- 1973 Research Assistant, National Science Foundation-sponsored research project on the urbanization process in fringe suburban communities, Harvard Graduate School of Design. Co-developed (with H. James Brown) Housing Allocation Model for suburbanizing areas.
- 1972-73 Research Assistant, Environmental Systems Program, Harvard University. Authored study of the distributional impact of air pollution abatement policies upon residences.
- 1972 Researcher, Ralph Nader Task Force on Congress, Washington, D.C. Investigation of the House and Senate Committees on Banking, Housing and Urban Affairs; Research on Housing Policy, Urban Transportation Policy, and Small Business Legislation.

### **Teaching**

Mortgage-Backed Securities and Structured Debt (graduate, University of California-Irvine)  
 The Real Estate Process (graduate, University of California-Irvine)  
 Advanced Seminar in Real Estate Investments (graduate, University of Wisconsin-Madison)  
 Advanced Real Estate Finance (graduate, University of Wisconsin-Madison)  
 Applied Real Estate Securities Analysis (graduate, University of Wisconsin-Madison, program coordinator 1999-2000, 2001-02)  
 Real Estate Equity Investment (graduate, Cal Berkeley, University of Wisconsin-Madison)  
 Real Estate Development Studio (graduate, Harvard)  
 Real Estate Finance and Economics (graduate, Harvard)  
 Seminar in Real Estate Development (graduate, SMU)  
 Real Estate and Urban Land Economics (undergraduate and graduate, SMU, and undergraduate at Cal Berkeley)  
 Urban Development and Planning (undergraduate and graduate, SMU)  
 Seminar in Housing Markets (graduate, SMU)  
 Residential Real Estate Development (undergraduate and graduate, University of Wisconsin-Madison)  
 Commercial Real Estate Development (undergraduate and graduate, University of Wisconsin-Madison)  
 Real Estate Finance (undergraduate and graduate, SMU and University of Wisconsin-Madison)  
 Real Property Valuation (undergraduate and graduate, SMU)  
 Ph.D. Seminar (University of Wisconsin - Madison)  
 Ways of Knowing: Real Estate and Urban Development. Undergraduate Honors Section, University of Wisconsin - Madison  
 Housing and Urban Development in Great Britain and the U.S.: A Cross-Cultural Perspective (undergraduate, SMU-in-Oxford program, summer 1981, 1983)

### **Ph.D. Advising**

Yongping Liang, Fannie Mae (Chair, completed 5/06)  
 Kiat Ying Seah, National University of Singapore (member, completed 2005)  
 Hoon Cho (Member, completed 2005)  
 Zhenguo Lin, Fannie Mae (Chair, completed 12/04)  
 Neo Poh Har (M.Sc., Estate Management, National University of Singapore, External Reader, completed 11/04)  
 Tim Craft, Wichita State University (member, completed 6/01)  
 Tammie X. Simmons, California State University – East Bay (reader, completed 8/00)  
 Qiang Fu, Federal National Mortgage Association (Chair, completed 5/98) (won first place AREUEA Dissertation Award)  
 Patrick Connolly, the Welch Companies (Masters, Institute for Environmental Studies and Real Estate,

Chair, completed 7/01)  
 Nino Pedrelli (Member, completed 5/99)  
 Ruslan Koesman, University of Jakarta, Indonesia (Reader, completed 8/97)  
 Tom Hamilton, University of St. Thomas (Non-reader, completed 8/97)  
 Charles Carter, Florida International University (Chair, completed 5/99)  
 Michael Lacour-Little, California State University - Fullerton (Chair, completed 8/96) (won second place AREUEA Dissertation Award)  
 Greg Chun, Kimpo University, Seoul, Korea (Reader, completed 12/96)  
 Brian Ciochetti, University of North Carolina (MIT starting fall 2004)(Chair, completed 12/94)  
 Elaine Worzala, Johns Hopkins University (Chair, completed 12/92)  
 Kwadwo Owusu-Aduemiri (External Reader, Urban and Regional Planning, completed 5/92)  
 Mark Eppli, Marquette University (Reader, completed 11/91)  
 Tim Riddiough, MIT (returned to University of Wisconsin 2001) (Reader, completed 5/91) (won first place AREUEA Dissertation Award)

### **University Service**

2007	Presentation to incoming Fully Employed MBA Class, "The Program in Real Estate and Urban Development at the Merage School of Business", July.
2007-	Capital Improvement Grants Committee, university of California-Irvine
2006-	Committee of Planning and Budget, University of California-Irvine
2006-	Academic Planning Council, University of California-Irvine
2006	Guest lecture in MGMT 6 class (Intro to Business) on "Real Estate Finance: An Introduction," August.
2006-	Merage School of Business Building Expansion Planning Committee, University of California-Irvine
2004-06	Member, Bascom Hill Society, University of Wisconsin-Madison
2003-04	Academic Planning Council, School of Business, University of Wisconsin-Madison
2003-04	Grainger Hall Addition (Graduate Centers) Building Committee
2002-04	Subcommittee of the Executive Committee, School of Business (Promotion and Tenure Committee)
2002-03	Business School Representative, "Create the Future from Within" Capital Campaign Committee
2002-06	Member, Faculty Advisory Committee, Graduate Program in Transportation Management and Policy, University of Wisconsin-Madison.
2002	Invited lecture to Graduate Engineering Seminar on "Financial Engineering in the Mortgage Market."
2002	Advisor to UW-Madison Housing Office on strategic planning for student housing provision over the next decade.
2001-02	Dean Search Committee, School of Business
2001-04	University Graduate School Research Committee (appointed to 3-year term by Dean of the Graduate School, UW-Madison).
2001	"The State of the Public Debt Markets." Invited presentation, Chicago REIAC Council Panel on "Four-Quadrant Investing in the Real Estate Markets," February.
2001	"Real Estate Illiquidity and Its Effect on Investment Risks/Returns." Invited presentation to Chief Investment Officer, State Farm Mutual Insurance Co., Bloomington, IL, March.
1999	"Considerations in the Development of a Real Estate Analyst Educational Program." Invited presentation, Commercial Realty Investors Society Meeting, Kansas City, May.
2001	"The National Economy and Its Implications for Real Estate." Invited presentation before Urban Land Institute Commercial Industrial Council, ULI Spring Meeting, Minneapolis, May.



- 2000 "Housing Affordability: Where Are We and Where Do We Go From Here?" Wisconsin Housing Conference, Milwaukee; planning, coordinating and participation, Center for Urban Land Economics Research, joint sponsors with Wisconsin Housing and Economic Development Authority (WHEDA).
- 2000-02 "Underwriting and Credit Risk in Real Estate Lending," two-day program, Korean Executive MBA Program, Helsinki School of Economics and Business, Finland (compensated).
- 1999 "Responsible Institutional Investment in U.S. Real Estate," presentation to Board of Directors, Illinois Teachers Retirement System (compensated).
- 2000 "Current Trends in the Employment of Recent Graduates in Real Estate." Invited presentation before the National Association of Industrial and Office Parks (NAIOP) Executive Symposium, San Diego, April.
- 2000-03 Member, Interdepartmental Search Committee for three "cluster hire" positions in land use.
- 2000 Member, Gender Equity Pay Committee.
- 2000 Acting Director, Weinert Center for Entrepreneurship (during transitional period).
- 1999 "Should Mortgage Discrimination Still be an Important Policy Concern?" debate broadcast on Wisconsin Public Radio, Milwaukee.
- 1999 "Critical Issues in Residential Brokerage," Wisconsin Housing Conference, Madison; planning, coordination and participation, Center for Urban Land Economics Research.
- 1998-2000 Member, Executive Programs Planning Committee, School of Business.
- 1999-2000, 2001-02 Faculty Advisor, Applied Real Estate Securities Analysis Program.
- 1998-99 Chair, Search and Screen Committee for Director, University Research Park.
- 1998-2004 Member, Board of Directors, Hilldale, Inc., Chair/Member Long-Range Planning Committee (Regional Mall, profit flows to University). Participated in sale of asset in April 2004.
- 1998-99 Member, Board of Directors, University Club.
- 1997-98 Member, University Dean Review Committee for School of Business Dean Andrew Policano.
- 1997 Advisor to Board of Directors, Hilldale Foundation on future ownership/ financing/ redevelopment/ re-tenanting options (shopping center owned by University-related non-profit).
- 1997 "Advanced Appraisal and Consulting Seminar: Historic Properties," planning, coordination, and participation, Center for Urban Land Economics Research.
- 1997 "Housing at the Millenium: Dynamics and Trends," Wisconsin Housing Conference, Madison; planning, coordination, and participation, Center for Urban Land Economics Research.
- 1997 U.W. Foundation-sponsored Founders Day speech, Orlando FL, February.
- 1996-97 Chairman, Subcommittee of the Executive Committee, School of Business, University of Wisconsin - Madison (Rank and Tenure Committee).
- 1996-97 Member, Chairs Committee, ex-officio as Chair of Subcommittee.
- 1996-97 Member, Land Use Policy Advisory Committee convened by Chancellor to advise on response to state land use regulatory reform proposals.
- 1996-97 Member, Executive Conference Facility Working Group.
- 1996-97 Member, Executive Education Policy Committee.
- 1996-97 Member, UW/Urban Land Institute Public-Private Development Advisory Committee convened by Chancellor to advise on development options on periphery of campus.
- 1996-97 Member, Executive Conference Facility Planning Committee, School of Business.
- 1995-97 Chairman, ad hoc Tenure Committee for Management Institute.
- 1996 "The Low-Income Housing Tax Credit Program: A Look at Federal/State Policy and Program Initiatives," Wisconsin Housing Conference, Madison; planning, coordination, and participation, Center for Urban Land Economics Research.
- 1996 U.W. Foundation-sponsored visit and presentation to alumni, Denver.
- 1995-2001 "Real Estate Investment and Feasibility Analysis: An Introduction with Applications,"

- planning, coordination, and instructor, Center for Urban Land Economics Research.
- 1995 "Valuation of Complex Properties," planning, coordination, and participation, Center for Urban Land Economics Research.
- 1995 "Rural/Small Town/Suburban Housing Markets: Challenges and Opportunities," Wisconsin Housing Conference, Madison; planning, coordination, and participation, Center for Urban Land Economics Research.
- 1995 Assisted Dean and Associate Dean in negotiations for new executive conference facility.
- 1994, 1995 "Environmental Considerations in Commercial Real Estate," Executive Education Program; planning, coordination, and participation. Center for Urban Land Economics Research.
- 1994 "Public/Private Initiatives in Metropolitan Neighborhood Redevelopment," Governors Housing Conference, Milwaukee; planning, coordination, and participation. Center for Urban Land Economics Research.
- 1994 "Demographic Trends and Their Effects on the Development of Residential Real Estate," Executive Leadership program for Heartland Development Company's staff and clients; planning, coordination, and participation. Center for Urban Land Economics Research.
- 1994 Requested by U.W. Alumni Association to present Founders Day speech, Miami, FL, before local area Wisconsin alumni.
- 1994-95 Consultant/Advisor to Hilldale Foundation Board of Directors on long-term strategic development plan for Hilldale Mall. Foundation funnels profits from mall operation to support University initiatives.
- 1994 Advisor to University and U.W. Foundation on possible acquisition of "Washington Campus."
- 1994 Five-Year Review Committee for Senior Faculty (2).
- 1994- Masters Program Committee.
- 1992- Advisor to the Board of Directors, University Research Park.
- 1992 U.W. Foundation Fundraising, Orange County, California.
- 1991 Participant, Alumni University Program, University of Wisconsin-Madison.
- 1991-93 Chairs Committee, School of Business, University of Wisconsin-Madison.
- 1990- Director, Center for Urban Land Economics Research, School of Business, University of Wisconsin-Madison.
- 1990-93 Member, Subcommittee of the Executive Committee, School of Business, University of Wisconsin-Madison (promotion and tenure committee).
- 1990-93 Member, Graduate Studies Committee, School of Business, University of Wisconsin-Madison.
- 1990-93 Member, Academic Planning Council, School of Business, University of Wisconsin-Madison.
- 1989-93 Chairman, Department of Real Estate and Urban Land Economics, School of Business, University of Wisconsin-Madison.
- 1989-90 Member, Construction Education Advisory Committee, University of Wisconsin-Madison.
- 1986-88 Chairman, Committee on Rank and Tenure, Edwin L. Cox School of Business, SMU.
- 1986-89 Chairman, Department of Real Estate and Urban Land Economics, SMU.
- 1986-89 Member, Executive Council, Edwin L. Cox School of Business, SMU.
- 1985-86 Member, Urban Design Program Council, Harvard.
- 1985-86 Member, Faculty Committee on Real Estate Education, Harvard.
- 1983-85 Chairman, Provost's Task Force on Graduate Education and Research.
- 1983-85 Member, Rank and Tenure Committee.
- 1983-89 Instructor, Costa Institute of Real Estate Finance Seminar in "Real Estate Investment Analysis Techniques: An Introduction and Critical Comparison."
- 1982-83 Faculty Senate Committee on Course and Teacher Evaluations
- 1982-83 Decision Room Task Force, Edwin L. Cox School of Business.
- 1982-84 Coordinator, Master of Science Program in Real Estate.

- 1982 Instructor, Costa Institute of Real Estate Finance Seminar in "Real Estate Investment Analysis: The State-of-the-Art in Techniques and Computer Applications."
- 1982 Instructor, Costa Institute of Real Estate Finance Seminar in "New Housing for the 80's: Emerging from Crisis."
- 1981-82 Advisory Board to the Provost.
- 1981-83 Executive Committee, Edwin L. Cox School of Business (Vice-Chairman 1981-82).
- 1980-82 Advisory Board, Public Administration Program.
- 1979-80 Educational Affairs Committee.
- 1976-78, 1980-81 Faculty Personnel Committee (chairman, 1977-78).
- 1976-79, 1981-84 Graduate Admissions Committee (chairman, 1983-84).

### **Community and Professional Service and Consulting**

- 2007 Invited keynote presentation to RealShare OC Symposium: "Be Careful Out There...A 2008 Prognosis for the Orange County Real Estate Market," August
- 2007 Invited member of organizing committee, "Keeping Kids on Track" Annual Real Estate Luncheon, sponsored by United Way of Orange County, June
- 2007 Invited panelist in Roundtable on "Thriving in the New Office Landscape," sponsored by the *California Real Estate Journal*, May (transcript later published).
- 2007 Podcast on *The Frank Peters Show*, discussing state of current real estate and mortgage markets and new academic program in real estate at UCI, April.
- 2007 Invited guest on *Orange County today*, television program, discussing current state of mortgage crisis, hosted by Rick Reif, April.
- 2007 Invited presentation to Annual CT Realty Investors' Group Meeting, on "Economic Outlook for Commercial Real Estate – 2007," April
- 2007 Interviewed by Bloomberg Network Television as a part of an in-depth discussion of the subprime mortgage meltdown, March
- 2007 Invited presentation to ULIOC Young Leaders Group on academic program in real estate and career opportunities, Irvine Company offices, Newport Beach CA, March
- 2007 Featured column "Ask the Econ Pro" on default in the subprime mortgage sector in *DS News*, March
- 2007 Invited presentation to Annual Economic Outlook Conference sponsored by the Irvine Chamber of Commerce, on "The Impact of Innovative Mortgage Financing Methods on Real Estate Markets," February
- 2007 Invited presentation to the Orange County Appraisal Society on "The Orange County Real Estate Market: Let's Take a Walk on the Macro Side," January
- 2006-07 Active member of Workforce Housing Task Force, sponsored by Orange County business Council
- 2006 Invited presentation to Orange County Real Estate Conference on "An Outsider's (until recently) Inside Take on the Orange County Real Estate Market," September
- 2006 Invited presentation to the "Dutch Treat Group" (major insurance company real estate officers association), Scottsdale Arizona, on "Reflections on some Issues facing Institutional Real Estate Investors ... (September 2006 Edition)"
- 2006 Co-author and presentation of results on the occasion of the Tenth Year Anniversary of the opening of the Monona Terrace Community and Convention Center, Madison Wisconsin: "Monona Terrace Community and Economic Impact Study," through firm of Virchow Krause & Co., July
- 2006 Invited presentation to Building Owners and Managers Association of Orange County on "Higher Education in Real Estate at UCI: A New Era".

- 2005 Invited presentation before Origen Co. Senior Management Retreat, Fort Worth TX, on "Optimal Capital Structure for the Manufactured Housing Industry: Design and Implications for Returns and Market Share".
- 2004 Invited participation in panel on "Higher Education in Real Estate: A Prognosis," Counselors of Real Estate National Meeting, Los Angeles CA, October.
- 2004 Washington Mutual Savings Bank (WAMU) and Center for Advanced Studies in Business (CASB), Fluno Center, University of Wisconsin-Madison, Executive Education Faculty in Building the Best Franchise Seminar : "Branch Site Selection Feasibility: A Contemporary Approach," Seattle WA, September.
- 2004 Invited Keynote Speaker, "How Technology is Changing Today's Real Estate Market," Schenck Business Solutions 2004 Real Estate Forum, Green Bay, Milwaukee, and Sheboygan, February.
- 2004 Invited address, "TIF's: The Mutation of a Good Idea," Capitol Neighborhoods Forum, Madison WI, January.
- 2003 Invited Keynote Address, Freddie Mac National Multifamily Housing Conference. "A Futurist Perspective on the Multifamily Market," Kohler WI, Sept.
- 2003 Invited presentations to Kiwanis Club of Western Kenosha and the Mitchell Field Rotary Club, "Urban Growth, Sprawl, and Land Use Regulation," April and October.
- 2003 Participation in policy debate on Inclusionary Zoning in Madison. Analysis of theoretical impact of policy on home prices and availability; evaluated empirical evidence in jurisdictions with such ordinances. Played role in policy dialog.
- 2003 At request of Managing Editor of *Real Estate Issues*, prepared paper "Preparing the Next Generation," (Fall 2003, pp. 26-33), which has generated much external recognition of our graduate real estate education program at Wisconsin among professionals and within other real estate academic programs.
- 2002-05 Elected member of Vestry, St. Andrews Episcopal Church. Chair, Outreach Task Force
- 2002 Ohio State University Fisher College of Business Central Ohio Real Estate Roundtable, invited keynote address on "Government's Involvement in Real Estate: For Better or Worse? For Rich or Poor? For Growth or for Sprawl?" October.
- 2002 Presentation to Downtown Madison Incorporated's *What's Up Downtown* speaker series on "Smart Growth: The Economic Impact on Downtown," September.
- 2002 Consultant to Donna Shalala, President, and Elizabeth Plater-Zyberk, Dean of Architecture and Planning, University of Miami, recommending process and structure for proposed initiative in real estate education.
- 2002 Presentation to Stark Realty Annual Meeting, Madison WI, on "Is There a Housing Bubble?"
- 2001-05 Downtown Rotary Club, Youth Education Committee.
- 2001 Participation in a Public Policy Forum sponsored by the Federal Reserve Bank of Chicago and its Housing Opportunity Partnership of Southeast Wisconsin on "Regionalism and Fair Housing," Milwaukee. Presentation on "How Developments in the Sub-Prime Mortgage Market are Increasing Opportunities for Homeownership".
- 2001 Invited presentation before Counselors of Real Estate Midyear Meeting, Chicago, on "Brainstorming the Future of America's Cities".
- 2001 Invited participation in Capital Markets Forecast Event, Real Estate Investment Advisory Council, Tower Club, Chicago, March. Presentation on "Current Trends in the Mortgage-Backed Securities Market".
- 2001 Invited presentation, Commercial Realty Investors (CRI) Summit, Kansas City, Mo., May, sponsored by the Commercial Real Estate Education Foundation, Inc. Title: "The Present and Future Role of Academia in the Market and the Profession".
- 2000 Invited to serve as a member of the Federal Reserve Bank of Chicago's Milwaukee Task Force on Equal Opportunity in Housing. Involved meetings, position papers, planning of

- conference, and discussions with staff. Intent is to highlight issues relating to access to mortgage credit in Milwaukee region.
- 2000 Village of Shorewood Hills, Advisor to Village Board on retail development proposal
- 1999 Overture Foundation (Madison, WI). Pre-feasibility study of possible acquisition of space for artist live/work communities
- 1999-2000 Overture Foundation, Downtown Madison, Inc., Monona Terrace Board (Madison, WI). Development of methodology for ongoing evaluation of economic impact of Arts District and Community and Convention Center
- 1999-2000 Roosevelt University. Consultant on strategic plan for development of a real estate academic program within the Heller School of Business
- 1997- Member, Board of Directors, ChrisKen Realty Trust, Chicago, IL, a private multifamily real estate investment trust (REIT) (Compensation Committee, Audit Committee)
- 1997-2000 Board of Trustees of Funds and Endowments, Episcopal Diocese of Milwaukee
- 1997-2002 Board of Directors of On Common Ground, bipartisan statewide non-profit organization seeking a rational dialog on land use policy issues
- 1997 Interview on WTDY TalkRadio, Madison, on economic performance expectations of the Frank Lloyd Wright Monona Terrace Convention Center, July
- 1996 Judge of NAIOP Office-Warehouse Awards Competition, Minneapolis
- 1996 Member, External Review Committee, University of Pennsylvania Wharton School Department of Real Estate
- 1996 Presentations before adult education group, St. Andrews Episcopal Church on "What Do We Know About the Relationship Between Violence and Neighborhood Conditions?" and "American Housing Policy: Are We Making Progress?"
- 1996 Member, Walnut Hill Community Development Corporation Advisory Committee (Milwaukee)
- 1996, 1998-2001 Alumni Interviewer, Rice University
- 1995 Presentation before Mortgage Bankers Association Advanced School of Commercial Real Estate Finance on "Evaluating and Rating Default Risk in Commercial Mortgages"
- 1995-97 Presentations before Mortgage Bankers Association Life Insurance Committee on "Evaluating Commercial Mortgage Portfolio Performance"
- 1995 Presentation before Multifamily Roundtable, Mortgage Bankers Association Annual meetings, San Diego on "Evaluating the Efficiency of the Section 42 Low Income Housing Tax Credit Program"
- 1994-96 Industrial Development Research Council (IDRC), Member of Education Committee
- 1995 Institute for Real Estate Management, Milwaukee Chapter. Invited speaker, Annual Trends Breakfast, "The Real Estate Market in the Twenty-First Century: A Long-Term Prognosis"
- 1995 Aaronson Schroeder Annual Outlook Conference, Milwaukee. Invited keynote presentation, "Real Estate in the Twenty-First Century: A Long-Term Prognosis"
- 1995-2005 Board of Review, Village of Shorewood Hills
- 1995- Board of Directors, Shorewood Foundation
- 1994-96 Member, Urban Land Institute Research Committee
- 1994 Visiting Committee, evaluation of Real Estate program at Northern Iowa University
- 1994 Presentation before members of SAVE Commission on pros and cons of private or state ownership and/or management of public school facilities
- 1994 State Advisory Committee on Leasing
- 1994 Presentation before Wisconsin Realtors Association State Conference, Oconomowoc
- 1994 Keynote Presentation, NAIOP Twin Cities Chapter Annual Breakfast
- 1994 Presentation on "Cities of the Future," Future Problem Solvers Class, Velma Hamilton Middle School
- 1994-95 Consultant/Advisor to Somerset Ad Hoc Working Group addressing problems of troubled Somerset neighborhood of South Madison



- 1993-94 Consultant/Advisor to Red Cliff Band of Lake Superior Chippewa to help the tribe evaluate the revenue potential derivable from a proposed hotel/resort complex on the shore of Lake Superior near Bayfield
- 1993-99 Wisconsin State Equity Corporation Board of Directors (Chairman 1994-99)
- 1994 Advisor to Mortgage Bankers Association on development of curriculum for Advanced School of Commercial Real Estate Finance
- 1993 Speech before National Mortgage Correspondent Group, Credit Union National Association
- 1993-94 Member, Board of Directors, Vandenberg Homes Corporation
- 1993 Invited Participant, Governors Roundtable on Solutions to the Credit Crunch
- 1993 Co-Chair, Stewardship Campaign, St. Andrews Episcopal Church
- 1993 Member, Tax Increment Financing District Committee, Village of Shorewood Hills
- 1992-98 Member, Urban Land Institute Urban Development/Mixed Use Council
- 1992-94 Member, Board of Directors, Wisconsin Partnership for Housing Development (on Strategic Planning Committee, Executive Committee)
- 1992-2005 St. Andrews Episcopal Church Service (Finance Committee, Usher, Counter, Meals on Wheels, Sunday School instructor, Adult Education Coordinator, etc.)
- 1992 Guest Lecturer, Coopers and Lybrand Management Seminar, Chicago and Newark
- 1991 Wisconsin Assessors Institute. Developed Workshop on Regional Mall Valuation Issues
- 1990-92 City of Madison and Future Madison, Inc. Economic Impact and Financial Structuring of Frank Lloyd Wright Convention Center
- 1989-92 Advisory Board, American Bankers Association School of Real Estate Finance
- 1989-2006 Member, Board of Directors, The Park Bank, Madison, Wisconsin
- 1988-94 The Travelers Insurance Companies, Hartford, CT. Evaluation of credit quality of commercial mortgage loan portfolio
- 1988-90 Salomon Brothers, Inc., New York. Member, Real Estate Consultants' Advisory Committee. Development of Real Estate Research Agenda. Studies of Commercial Mortgage Default Risk and Effects of Foreclosure Costs on Mortgage Yields
- 1987 Evaluation of Impact of Historic District Designations on Property Values for Dallas Historic Landmarks Commission
- 1987-89 Member, Housing Committee, Central Dallas Association
- 1985-87 Urban Land Institute National Advisory Panel on Default Risk in Commercial Lending
- 1985-86 North Central Texas Legal Services Foundation. Evaluation of Effects of Eligibility Criteria on Section 8 Housing Availability and Location
- 1985 Dallas County Appraisal District. Evaluation and Implementation of Alternative Methodologies to Determine Appraisal Biases
- 1985-87 Instructor, Federal Home Loan Bank Board Seminar on Evaluating Interest Rate and Credit Risk Inherent in S&L Operations. Dallas, Cambridge, Seattle, Boulder, San Francisco
- 1985 Instructor, Republic Bank Seminar on Discounting Techniques for Property Valuation in Soft Markets
- 1984 Instructor, Society of Real Estate Appraisers Course 201, "Principles of Income Property Appraising"
- 1982-83 Dallas Museum of Fine Arts. Evaluation of impact of El Greco exhibit on local economy
- 1979-80 City of Plano, Texas. Development of a fiscal impact model for use in evaluating development proposals
- 1979 U.S. Department of Housing and Urban Development, Washington, D.C. Evaluation of relationship between Housing Assistance Plan (HAP), Housing Opportunity Plan (HOP), and Community Development Block Grant (CDBG) Program
- 1979 Dallas Chamber of Commerce and Dallas Museum of Fine Arts. Project to determine economic development potential of major arts exhibits such as Pompeii, A.D. 79
- 1978-80 Vice Chairman, Dallas Alliance Task Force on Neighborhood Revitalization
- 1978-82 Member, Housing Goals Achievement Committee, Goals for Dallas

- 1977-78 Member, Goals Review Committee, Goals for Dallas
- 1977-79 Chairman, Housing Task Force, Goals for Dallas
- 1977 White House Conference on Balanced National Growth and Economic Development (through Firm of Marshall Kaplan, Gans, and Kahn). Evaluation of current patterns of economic and population growth in southern cities (project director)
- 1976-81 Member, Dallas Housing Forum (Board of Directors, 1979-80)
- 1976-78 Member, Dallas Housing Authority Committee on Administration, Personnel, and Consultants
- 1977-79 Member, Neighborhood Revitalization Task Force of the Dallas Alliance; presentation before Board of the Dallas Alliance on Neighborhood Revitalization (1977)
- 1977-79 Member, Steering Committee, Dallas Neighbors
- 1977 Marshall Kaplan, Gans, and Kahn. Evaluation of an economic development strategy for the City of Denver, Colorado
- 1976-81 Member, Historic Preservation League
- 1974 Federal Home Loan Bank Board, Washington, D.C. Review of the literature on the influence of financial institutions on neighborhood decline and assessment of research priorities (project coordinator)
- 1974 Fairfax County, Virginia. Feasibility study for the development of a Housing and Environmental Development Corporation Project to assess the potential role, responsibility, and opportunity for public land development agency in a county context. Identifies major organizational and financial strategies available for the development corporation, based upon relevant precedents in the U.S. and abroad (with Arthur P. Solomon and Peter Epstein).

#### **Testimony Provided Over the Last Four Years**

- 2008 *J. Paul Reddam et al., v. KPMG LLP et al.*, JAMS Arbitration Pursuant to NASD Rules (JAMS Ref No. 1220036520)  
Expert witness analysis and testimony on behalf of defending parties relating to the alleged impact of professional advice on terms of Mr. Reddam's sale of interest in DiTech.
- 2007-08 *In Re: Eagle Real Estate Group, LLC, et al., v Kenneth R. Melton, et al.*; In the Superior Court of California County of Orange; Case No. 06CC12145  
Expert witness testimony on behalf of plaintiffs relating to damages resulting from improper activities of defendants.
- 2007 *In Re: Katrina Canal Breaches Consolidated Litigation*; In the United States District Court Eastern District of Louisiana; Civil Action No. 05-4182 "K" (2)  
Provided deposition testimony and testimony at *Daubert* hearing for one of defendants in class action case brought against Army Corps of Engineers and contractors, examining the extent to which the representative plaintiffs were similarly affected by meteorological event of Hurricane Katrina.
- 2006-07 *American Interbanc Mortgage LLC v. Novastar Home Mortgage, Inc. et al.* case.  
Provided deposition testimony in a matter involving the impact assessment of alleged Web-based "bait and switch" tactics on plaintiff's business.
- 2004-05 *PT Limited v. Department of Natural Resources and Mines* [2006] QLC 0068; In the Land Court of Queensland, Australia; File No. AV2003/0803  
Provided testimony as an expert witness in the Land Court of Queensland Australia on challenges of assessed valuations by major shopping center owner relating to alleged presence of non-assessable intangible interests.



2004-06     *State of Rhode Island, by and through Patrick Lynch, Attorney General v. Lead Industries Association, Inc., et al.*; In the State of Rhode Island Superior Court; Civil Action No. 99-5226

Provided testimony as an expert witness in a Rhode Island litigation on the impact of the presence of lead paint on housing market dynamics.

2004        *Wells Fargo Bank Minnesota, National Association, As Trustee for the Certificateholders of Merrill Lynch Mortgage Investors, Inc. Mortgage Pass-Through Certificates Series 1999-C1 and Orix Capital Markets, L.L.C. v. UBS Warburg Real Estate Securities, Inc. and UBS Painewebber, Inc.*; In the District Court of Dallas County, Texas; 192nd Judicial District; Case No. 02-02849

Expert witness in a litigation relating to factors influencing valuation of subordinate interest in a mortgage-backed security issue.

## **EXHIBIT 30**

**Port Authority Investment in World Trade Center<sup>[A]</sup>**  
**in estimated Dollars as of 8/14/2008**  
**(\$ Millions)**

	Investment <sup>[1]</sup>	BEA Index Values <sup>[2]</sup>	BEA 8-14-08 Est. Value <sup>[C]</sup>
1965	13.3	8.8	242.0
1966	21.0	9.6	350.7
1967	34.1	10.2	534.0
1968	68.9	11.3	980.1
1969	107.4	13.0	1,320.4
1970	161.2	15.1	1,716.7
1971	139.9	17.1	1,314.0
1972	113.8	18.6	981.3
1973	81.4 <sup>[B]</sup>	20.3	642.4
1974	57.0	22.6	404.8
1975	74.0	25.2	471.1
1976	50.0	26.8	299.0
1977	27.0	29.2	148.4
1978 - 1983	130.0	42.3	492.8
2007		157.8	
8/14/08 Value (Est.)		160.4	
<b>Total</b>	<b>1,079.0</b>		<b>9,897.8</b>

**Sources:**

[1] Port Authority Annual Reports, 1965, p.70; 1966, p.50; 1967, p.54; 1968, p.46; 1969, p.46; 1970, p.50; 1971, p.58; 1972, p.58; 1974, p.30; 1975, p.23; 1976, p.21; 1977, p.25. 1978 - 1983 cost estimated as the difference between the costs from 1965 through 1977 and the amount of the Port Authority's investment in the World Trade Center of approximately \$1.079 billion as of the end of 1983 per The Port Authority's Fact Sheet, dated June 1984.

[2] Chain-type price index for value added by industry ["construction"] from Bureau of Economic Analysis,  
[http://www.bea.gov/industry/gpotables/gpo\\_action.cfm?anon=74696&table\\_id=22078&format\\_type=0](http://www.bea.gov/industry/gpotables/gpo_action.cfm?anon=74696&table_id=22078&format_type=0). 1978 - 1983 amount is the average of the corresponding BEA Index amounts for the corresponding years.

**Notes:**

[A] "The amount 'invested in facilities' consists primarily of expenditures, including the expenditure of Federal and State grants, to acquire, construct, place in operation and improve the facilities of the Port Authority and includes net discount and expense incurred in connection with bonds and notes issued for construction purposes as well as net interest expense during the period of construction." See, e.g., 1972 Annual report, p. 64, Note 3.

[B] 1973 Annual report does not include "Investment in WTX"; 1977 Annual report indicates "Completed Construction - Cost of Facilities: World Trade Center \$949.047 million" p. 30. Implies \$81.447 million for 1973.

[C] Estimated by multiplying "investment" amount by ratio of estimated BEA amount as of 8/14/08 to corresponding year's BEA amount. BEA amount as of 8/14/08 estimated by multiplying the annual change in BEA index between 2006 and 2007 (1.6%) by the 2007 BEA index amount (157.8).